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**DEPARTMENT OF DEFENSE
IN-HOUSE RDT&E ACTIVITIES**

AD-A183 192



30 OCTOBER 1985

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Management Analysis Report . . .

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Department of the Army

Department of the Navy

Department of the Air Force

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DEPARTMENT OF DEFENSE IN-HOUSE RDTE ACTIVITIES

30 October 1985

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Prepared for:

US ARMY MATERIEL COMMAND
5001 Eisenhower Avenue
Alexandria, Virginia 22333

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FOREWORD

THIS REPORT WAS PREPARED FOR THE US ARMY MATERIEL COMMAND AT THE DIRECTION OF THE DEPUTY CHIEF OF STAFF FOR RESEARCH, DEVELOPMENT, AND ACQUISITION. THIS EDITION IS THE EIGHTEENTH OF A SERIES THAT WAS INITIATED IN 1966.

EACH IN-HOUSE RDTE ACTIVITY OF THE DEPARTMENT OF DEFENSE IS DESCRIBED ON ONE PAGE IN THIS COMPILATION. THE DATA FOR 1985 ARE SUMMARIZED IN TABLES PRECEDING THE MAIN TEXT AND CHARTS AND TABLES ARE PROVIDED FOR EACH SERVICE SHOWING ORGANIZATIONAL RELATIONSHIPS AND COMMAND CHAIN.

ALL CURRENT DOD RDTE ACTIVITIES WHICH MEET THE REPORT REQUIREMENT OF HAVING AT LEAST 25 PER CENT OF THEIR BUDGET IN RDTE FUNDS ARE LISTED IN THE CONTENTS ALPHABETICALLY WITHIN EACH DEPARTMENT. SOME FACILITIES WHICH DO NOT MEET THE REQUIREMENT PREVIOUSLY NOTED ARE ALSO LISTED BY SPECIAL REQUEST. ORGANIZATIONAL CHANGES DURING FY 1985 APPEAR IN APPENDIX I.

DOD INSTRUCTION 7700.9, WHICH HAS BEEN THE BASIS FOR THIS REPORT SINCE ITS INCEPTION, HAS BEEN REPLACED BY A TRI-SERVICE REGULATION, AR 70-63 NAVCOMPTIST 7044.5E, AFR 80-26, DNA 7700.9A, ENTITLED DOD IN-HOUSE RDTE ANNUAL ACTIVITIES REPORT, 1 SEPTEMBER 1981. APPENDIX II CONTAINS MANY OF THE DEFINITIONS USED IN THIS REPORT AND ARE PROVIDED AS AN ADDITIONAL AID IN USE OF THE REPORT. APPENDIX III LISTS SELECTED ABBREVIATIONS AND ACRONYMS. APPENDIX IV LISTS SELECTED KEY WORDS WITH PAGE REFERENCES.

EVERY EFFORT HAS BEEN MADE TO PROVIDE ACCURATE INFORMATION, PARTICULARLY FISCAL AND PERSONNEL DATA. ALL NUMBERS AND STATEMENTS HAVE BEEN THOROUGHLY EXAMINED AND, IN ALMOST ALL CASES, REVIEWED WITH THE SUBMITTING AGENCY TO INSURE CORRECTNESS AND CLARITY.

ALTHOUGH CONSIDERABLY MORE DATA IS ACCUMULATED THAN PUBLISHED IN THIS REPORT, ALL DATA IS USED BY NUMEROUS ORGANIZATIONS SUCH AS THE DEPARTMENT OF DEFENSE, OFFICE OF TECHNOLOGY ASSESSMENT, ARMY AUDIT AGENCY, VARIOUS COMMITTEES OF THE CONGRESS, AND THE GENERAL ACCOUNTING OFFICE AMONG OTHERS. AVAILABILITY OF THIS DATA ALSO ALLOWS TIMELY AND ACCURATE INFORMATION TO BE PROVIDED WITHOUT CONTINUAL RECOURSE TO THE APPROPRIATE FIELD ACTIVITY.

NO MAJOR CHANGES HAVE BEEN MADE IN THIS YEAR'S REPORT VIS-A-VIS LAST YEAR'S.

IT IS DESIRED THAT THIS PUBLICATION BE GIVEN WIDESPREAD DISTRIBUTION IN THE DOD LABORATORIES AS AN INTERNAL MANAGEMENT DOCUMENT AT THE DIRECTOR AND COMMANDING OFFICER LEVEL AS WELL AS AT THE BENCH LEVEL IN ORDER TO ALLOW PERSONNEL AN OPPORTUNITY TO FAMILIARIZE THEMSELVES WITH THE FUNCTIONAL CAPABILITIES OF OTHER DOD LABORATORIES. IT IS HOPED THAT BY THIS MEANS LABORATORY SCIENTISTS AND ENGINEERS WILL BE ENCOURAGED TO COMMUNICATE WITH EACH OTHER ON COMMON PROBLEMS OF INTEREST TO THEIR SERVICE LABORATORIES AS WELL AS TO COMMUNICATE WITH LABORATORIES OF THE OTHER SERVICES.

ADDITIONAL COPIES OF THIS DOCUMENT MAY BE OBTAINED BY WRITING THE DEFENSE TECHNICAL INFORMATION CENTER, BUILDING 5, CAMERON STATION, ALEXANDRIA, VIRGINIA 22314.

CONTENTS

	PAGE
FOREWORD	III
CONTENTS	V
TABLES	VIII
CHARTS	VIII
SUMMARY: DEPARTMENT OF DEFENSE IN-HOUSE RDTE FACILITIES	IX
SUMMARY: DEPARTMENT OF DEFENSE IN-HOUSE R&D LABORATORIES	XIX

DEPARTMENT OF THE ARMY

AEROMEDICAL RESEARCH LABORATORY	1
AIR DEFENSE ARTILLERY BOARD.....	2
AIRBORNE & SPECIAL OPERATIONS TEST BOARD	3
ARMOR AND ENGINEER BOARD	4
ARMY RESEARCH OFFICE	5
ATMOSPHERIC SCIENCES LABORATORY	6
AVIATION BOARD	7
AVIATION DEVELOPMENT TEST ACTIVITY	8
AVIATION ENGINEERING FLIGHT ACTIVITY	9
AVIATION RESEARCH & TECHNOLOGY ACTIVITY	10
AVIONICS R&D ACTIVITY	11
BALLISTIC RESEARCH LABORATORY	12
BELVOIR RESEARCH AND DEVELOPMENT CENTER	13
CHEMICAL RESEARCH & DEVELOPMENT CENTER	14
COLD REGIONS R&E LABORATORY	15
COLD REGIONS TEST CENTER	16
COMBAT SYSTEMS TEST ACTIVITY	17
COMMUNICATIONS-ELECTRONICS BOARD	18
COMMUNICATIONS-ELECTRONICS R&D CENTER	19
CONSTRUCTION ENGINEERING RESEARCH LABORATORY	20
DUGWAY PROVING GROUND	21
ELECTRONIC PROVING GROUND	22
ELECTRONIC WARFARE LABORATORY	23
ELECTRONICS TECHNOLOGY AND DEVICES LABORATORY	24
ENGINEER TOPOGRAPHIC LABORATORIES	25
ENGINEER WATERWAYS EXPERIMENT STATION	26
FIELD ARTILLERY BOARD	27
FIRE CONTROL & SMALL CAL WPNS SYSTEMS LABORATORY	28
HARRY DIAMOND LABORATORIES	29
HUMAN ENGINEERING LABORATORY	30
INFANTRY BOARD	31
INSTITUTE OF DENTAL RESEARCH	32
INSTITUTE OF SURGICAL RESEARCH	33
INTELLIGENCE & SECURITY BOARD	34
KWAJALEIN MISSILE RANGE, MARSHALL ISLANDS	35
LARGE CALIBER WPNS SYSTEMS LABORATORY	36
LETTERMAN ARMY INSTITUTE OF RESEARCH	37

DEPARTMENT OF THE ARMY (con't)

	<u>PAGE</u>
MATERIALS TECHNOLOGY LABORATORY	38
MATERIEL SYSTEMS ANALYSIS ACTIVITY	39
MEDICAL BIOENGINEERING R&D LABORATORY	40
MEDICAL MATERIEL DEVELOPMENT ACTIVITY	41
MEDICAL R&D COMMAND	42
MEDICAL RESEARCH INSTITUTE OF CHEMICAL DEFENSE	43
MEDICAL RESEARCH INSTITUTE OF INFECTIOUS DISEASES	44
MISSILE LABORATORY	45
NATICK RD&E CENTER	46
NIGHT VISION & ELECTRO-OPTICS LABORATORY	47
RESEARCH INST FOR BEHAVIORAL & SOCIAL SCIENCES	48
RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE	49
SIGNALS WARFARE LABORATORY	50
TANK-AUTOMOTIVE COMMAND RD&E CENTER	51
TROPIC TEST CENTER	52
WALTER REED ARMY INSTITUTE OF RESEARCH	53
WHITE SANDS MISSILE RANGE	54
YUMA PROVING GROUND	55

DEPARTMENT OF THE NAVY

AEROSPACE MEDICAL RESEARCH LABORATORY	56
AIR DEVELOPMENT CENTER	57
AIR PROPULSION CENTER	58
AIR TEST CENTER	59
ATLANTIC FLEET WEAPONS TRAINING FACILITY	60
BIODYNAMICS LABORATORY	61
BIOSCIENCES LABORATORY	62
CIVIL ENGINEERING LABORATORY	63
CLOTHING & TEXTILE RESEARCH FACILITY	64
COASTAL SYSTEMS CENTER	65
DAVID W. TAYLOR SHIP R&D CENTER	66
DENTAL RESEARCH INSTITUTE, NTC	67
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	68
EXPLOSIVE ORDNANCE DISPOSAL FACILITY	69
HEALTH RESEARCH CENTER	70
MEDICAL RESEARCH INSTITUTE	71
MEDICAL RESEARCH UNIT NO. 2	72
MEDICAL RESEARCH UNIT NO. 3	73
OCEAN R&D ACTIVITY	74
OCEAN SYSTEMS CENTER	75
OFFICE OF NAVAL RESEARCH	76
ORDNANCE MISSILE TEST STATION	77
PACIFIC MISSILE TEST CENTER	78
PERSONNEL RESEARCH & DEVELOPMENT CENTER	79

DEPARTMENT OF THE NAVY (con't)

	<u>PAGE</u>
RESEARCH LABORATORY	80
SUBMARINE MEDICAL RESEARCH LABORATORY	81
SURFACE WEAPONS CENTER	82
UNDERSEA RANGES DEPARTMENT	83
UNDERWATER SYSTEMS CENTER	84
WEAPONS CENTER	85
WEAPONS EVALUATION FACILITY	86

DEPARTMENT OF THE AIR FORCE

AERO PROPULSION LABORATORY	87
AEROSPACE MEDICAL RESEARCH LABORATORY	88
ARMAMENT DIVISION	89
ARMAMENT LABORATORY	90
ARNOLD ENGINEERING DEVELOPMENT CENTER	91
AVIONICS LABORATORY	92
EASTERN SPACE AND MISSILE CENTER	93
ENGINEERING AND SERVICES CENTER/RD	94
FLIGHT DYNAMICS LABRATORY	95
FLIGHT TEST CENTER	96
FRANK J. SEILER RESEARCH LABORATORY	97
GEOPHYSICS LABORATORY	98
HUMAN RESOURCES LABORATORY	99
MATERIALS LABORATORY	100
OFFICE OF SCIENTIFIC RESEARCH	101
ROCKET PROPULSION LABORATORY	102
ROME AIR DEVELOPMENT CENTER	103
SCHOOL OF AEROSPACE MEDICINE	104
WEAPONS LABORATORY	105
WESTERN SPACE AND MISSILE CENTER	106
4950 TEST WING	107
6585TH TEST GROUP	108
 ARMED FORCES RADIobiology RSCH INSTITUTE	 109

APPENDICES:

I. CHANGES IN ORGANIZATION OR NAME	110
II. DEFINITIONS	111
III. SELECTED STANDARD ABBREVIATIONS AND ACRONYMS	114
IV. KEY WORDS	115

TABLES

	<u>PAGE</u>
TABLE 1. ARMY RDTE ACTIVITIES, PROGRAM AND PERSONNEL DATA	X
TABLE 2. ARMY RDTE FACILITIES DATA	XII
TABLE 3. NAVY RDTE ACTIVITIES, PROGRAM AND PERSONNEL DATA	XIV
TABLE 4. NAVY RDTE FACILITIES DATA	XV
TABLE 5. AIR FORCE RDTE ACTIVITIES, PROGRAM AND PERSONNEL DATA ...	XVI
TABLE 6. AIR FORCE RDTE FACILITIES DATA	XVII
TABLE 7. DOD R&D ACTIVITIES, PROGRAM AND PERSONNEL DATA	XVIII
TABLE 1A. ARMY R&D LABORATORIES, PROGRAM AND PERSONNEL DATA	XX
TABLE 2A. ARMY R&D FACILITIES DATA	XXI
TABLE 3A. NAVY R&D LABORATORIES, PROGRAM AND PERSONNEL DATA	XXII
TABLE 4A. NAVY R&D FACILITIES DATA	XXIII
TABLE 5A. AIR FORCE R&D LABORATORIES PRCGRAM AND PERSONNEL DATA ...	XXIV
TABLE 6A. AIR FORCE R&D FACILITIES DATA	XXV
TABLE 7A. DOD R&D FACILITIES DATA	XXVI
TABLE 8. ARMY R&D LABORATORY ORGANIZATIONAL RELATIONSHIPS	XXVII
TABLE 9. NAVY R&D LABORATORY ORGANIZATIONAL RELATIONSHIPS	XXIX
TABLE 10. AIR FORCE R&D LABORATORY ORGANIZATIONAL RELATIONSHIPS ...	XXX

CHARTS

ARMY LABORATORIES COMMAND CHAIN	XXXI
NAVY LABORATORIES COMMAND CHAIN	XXXII
AIR FORCE LABORATORIES COMMAND CHAIN	XXXIII

SUMMARY

DEPARTMENT OF DEFENSE IN-HOUSE RDT&E FACILITIES

PROGRAM DATA FOR FY 1985

	(MILLIONS)
TOTAL ANNUAL PROGRAM	15821.187
TOTAL INHOUSE PROGRAM	5927.891
TOTAL RDT&E PROGRAM	9730.347
TOTAL INHOUSE RDT&E	8644.558
TOTAL ANNUAL OPERATING COST	1624.866

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD	TOTAL PROFESSIONALS
MILITARY	26552	799	7429
CIVILIAN	78413	4065	83597
TOTAL	99965	4864	41026

PHYSICAL FACILITIES (END OF FY 1985)

ACRES 6259285

SPACE (THOUSANDS OF SQ FT)

LABORATORY	31821.166
ADMINISTRATIVE	10864.166
OTHER	51251.811
TOTAL	98987.143

COST (MILLIONS)

REAL PROPERTY	5274.714
EQUIPMENT	5488.259
TOTAL	10712.973

TABLE I. ARMY ROTC ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1985

INSTALLATION	FUNDING DATA (MILLIONS \$)			PERSONNEL DATA		
	TOTAL	INHOUSE	RDT&E	TOTAL	PHD	PROF
	RD&E	MIL	CIV	RD&E	MIL	CIV
AEROMEDICAL RESEARCH LABORATORY	11.072	10.241	8.349	7.516	72	13
AIR DEFENSE ARTILLERY BOARD	10.596	8.449	5.436	3.943	95	4
AIRBORNE & SPEC. OP. TEST BOARD	6.204	7.666	3.328	2.990	56	0
ARMOR AND ENGINEER BOARD,	10.263	10.263	10.738	1.76	126	0
ARMY RESEARCH OFFICE	104.407	0	104.254	0.000	2	133
ATMOSPHERIC SCIENCES LABORATORY	40.114	23.472	30.576	22.556	58	403
AVIATION BOARD	6.792	6.792	4.200	4.200	44	0
AVIATION DEVELOPMENT TEST ACTIVITY	23.754	23.754	10.359	10.359	194	93
AVIATION ENGINEERING PLT ACTIVITY	10.051	9.505	7.591	7.045	64	100
AVIATION RESEARCH + TECH ACTIVITY	153.600	42.100	148.057	38.186	24	365
AVIONICS RAD ACTIVITY	35.570	12.650	23.964	6.931	17	259
BALLISTIC RESEARCH LABORATORY	161.640	84.441	135.319	63.391	14	743
BELVOIR RESEARCH & DEV CENTER	221.414	62.651	139.491	65.940	59	1040
CHEMICAL RESEARCH AND DEVELOPMENT CENTER	183.689	74.064	141.807	53.982	99	980
COLD REGIONS RESEARCH & ENGINEERING LAB	25.121	17.728	13.170	8.034	15	278
COLD REGIONS TEST CENTER	12.643	12.643	7.056	7.056	256	24
COMBAT SYSTEMS TEST ACTIVITY	112.630	101.660	70.708	64.479	220	995
COMMUNICATIONS - ELECTRONICS BOARD	5.394	5.394	2.181	2.181	53	43
CONSTRUCTION ENGINEERING RESEARCH LAB	92.961	27.354	75.635	22.684	13	664
DUGWAY PROVING GROUND	40.926	19.350	36.276	17.350	4	259
ELECTRONIC PROVING GROUND	62.503	59.239	52.498	49.154	175	826
ELECTRONIC WARFARE LABORATORY	69.566	46.647	48.752	29.251	603	211
ELECTRONICS TECHNOLOGY AND DEVICES LAB	350.283	34.755	120.627	16.005	26	349
ENGINEER TOPOGRAPHIC LABORATORIES	67.812	22.995	79.865	17.430	1	290
ENGINEER WATERWAYS EXPERIMENT STA.	35.654	12.138	32.702	9.679	11	297
FIELD ARTILLERY BOARD	114.290	91.545	49.773	40.638	17	1642
FIRE CONTROL & SMALL CAL. WPN'S SYST. LAB	10.701	10.701	6.387	6.387	112	52
HARRY DIAMOND LABORATORIES	109.691	62.538	61.050	24.650	15	646
HUMAN ENGINEERING LABORATORY	165.459	99.263	92.122	74.846	3	1016
INFANTRY BOARD	16.465	14.674	17.676	14.090	35	176
INSTITUTE OF DENTAL RESEARCH	7.191	7.191	3.607	3.687	107	77
INSTITUTE OF SURGICAL RSCH	6.326	6.245	6.425	4.475	60	20
INTELLIGENCE AND SECURITY BOARD	8.869	8.669	3.360	3.360	156	72
KWAJALEIN MISSILE RANGE, MARSHALL ISLANDS	6.256	1.501	3.447	1.379	84	33
LARGE CALIBER WEAPONS SYSTEMS LAB	172.621	9.100	170.131	6.410	44	105
LETTERMAN ARMY INSTITUTE OF RESEARCH	263.223	137.129	206.023	60.179	27	1726
MATERIALS TECHNOLOGY LABORATORY	21.312	16.269	16.422	11.379	155	99
MATERIEL SYSTEMS ANALYSIS ACTIVITY	59.391	37.676	52.652	33.183	14	617
MEDICAL BIOENGINEERING RAD LAB	16.583	6.499	13.906	6.380	30	92
MEDICAL MATERIAL DEVELOPMENT ACTIVITY	45.940	1.756	45.754	1.756	26	39
MEDICAL W & D COMMAND	13.064	10.749	9.495	7.180	60	175
MEDICAL RSCH INST OF CHEMICAL DEFENSE	42.604	19.446	38.052	16.182	85	155
MEDICAL RSCH INST OF INFECTIOUS DIS.	38.994	28.995	30.448	20.449	295	192
MISSILE LABORATORY	241.546	113.513	192.310	71.127	41	883
NATICK RESEARCH DEVELOPMENT AND ENGR CTR	136.265	54.611	61.273	41.554	102	1004
NIGHT VISION AND ELECTRO-OPTICS LAB	172.546	39.622	111.941	34.677	33	476
RESEARCH INST FOR BEW & SOCIAL SCI	70.052	24.620	70.241	22.069	56	342
RSCH INST OF ENVIRONMENTAL MEDICINE	11.612	6.337	10.116	6.341	73	64

SIGNALS WARFARE LAB.	306.061	11.550	60.023	5.642	65	205	0	4	13	173
TANK AUTOMOTIVE TEST CENTER	122.270	40.373	101.096	23.517	29	775	0	17	22	363
TRONIC TEST CENTER	5.325	5.229	3.682	3.586	70	61	0	2	11	11
WALTER REED ARMY INSTITUTE OF RESEARCH	103.234	59.158	64.639	40.567	451	554	98	60	301	232
WHITE SANDS MISSILE RANGE	264.740	215.803	213.402	167.021	678	2664	5	71	279	1085
YUMA PROVING GROUND	65.261	39.165	44.476	26.415	424	733	0	3	36	164
TOTALS	4587.832	1950.957	3127.110	1310.261	5910	24092	429	1510	2530	12100

TABLE 2. ARMY ROTATE FACILITIES DATA, FY 1985

INSTALLATION	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLIONS \$)		
	REAL	PROPERTY	EQUIPMENT	ADMIN	OTHER	13.519
AEROMEDICAL RESEARCH LABORATORY	53	69,572	18,000	10,669	7,506	15.185
AIR DEFENSE ARTILLERY BOARD	0	11,220	37,090	35,357	1,370	6,953
AIRCRAFT & SPEC. OP. TEST BOARD	27	3,970	40,795	44,183	0,103	19,850
ARMOR AND ENGINEER BOARD,	2	36,062	50,454	88,069	1,455	0.790
ARMY RESEARCH OFFICE	0	0,000	29,420	0,000	0,000	0.790
ATMOSPHERIC SCIENCES LABORATORY	15	51,541	26,663	67,658	20,213	23.194
AVIATION BOARD	0	0,000	10,826	20,470	0,000	1,900
AVIATION DEVELOPMENT TEST ACTIVITY	1196	0,000	53,829	127,687	2,055	36,665
AVIATION ENGINEERING FLT ACTIVITY	19	9,200	1,600	126,000	4,042	15,932
AVIATION RESEARCH + TECH ACTIVITY	127	68,048	58,673	16,370	2,272	19,439
AVIONICS R&D ACTIVITY	2	52,450	13,665	19,100	0,000	11,344
BALLISTIC RESEARCH LABORATORY	1920	375,522	116,705	53,044	9,085	55,000
DELTA RESEARCH & DEV CENTER	1052	359,261	186,816	260,584	19,598	39,194
FORT BELVOIR, VA	3471	420,073	348,763	567,620	52,317	
ABERDEEN PG, MD	31	106,797	30,027	145,148	15,995	
HANOVER, NH	647155	0,000	34,184	167,282	10,336	
APO SEATTLE, WA	22665	720,999	4,351	248,742	22,176	
ABERDEEN PGW GRD, MD	7	0,000	19,625	1,823	0,253	
FORT GORDON GA	0	39,286	98,975	6,485	0,000	
FIT MONMOUTH N.J.	31	45,876	41,549	30,335	10,000	
CHAMPAIGN, IL	606123	159,561	198,386	1591,684	57,000	
DOUGHAY, UTAH	35663	0,150	28,042	312,519	11,000	
FORT HUACHUCUA, AZ	106	112,278	35,107	6,169	6,775	
FIT. MONMOUTH, NJ	0	58,763	35,037	0,000	0,000	
F.T. MONMOUTH, N.J.	0	90,722	7,000	13,300	10,000	
FORT BELVOIR, VA	33	173,080	353,645	176,809	42,300	
VICKSBURG, MS	3073	0	13,790	36,080	16,939	
FIT SILL, OK	7	177,420	103,980	4,667	10,122	
OFOVER, NJ	2316	507,829	112,019	121,492	53,921	
ADELPHI, MD	72	111,524	7,056	21,400	10,626	
ABERDEEN PROV. GR, MD	0	0,000	32,203	32,885	3,000	
FORT BENNING, GA	1	0	9,652	5,696	1,200	
WASHINGTON, D.C.	0	0	1,600	22,400	2,610	
FIT SAM HOUSTON, TX	1	26,424	1,600	22,400	5,432	
FORT HUACHUCUA, AZ	10	4,000	4,627	21,667	0,616	
APO SAN FRANCISCO	1361	0,000	209,606	2423,848	237,550	
DOVER, N.J.	17	407,992	235,400	65,000	1,632	
PRES. OF SAN FRA, CA	9	119,204	56,941	112,174	43,779	
MATERSON, MA	37	352,000	68,375	68,375	14,879	
INSTITUTE OF SURGICAL RECH	0	0	0	0	0	
INTELLIGENCE AND SECURITY BOARD	4	8,140	100,276	1,715	2,070	
KMAGALEIN MISSILE RANGE, MARSHALL ISLANDS	5	23,691	42,773	13,389	3,836	
LARGE CALIBER WEAPONS SYSTEMS LAB	0	0,000	12,864	0,000	0,532	
LETTERMAN ARMY INSTITUTE OF RESEARCH	9	0	0	0	0,650	
MATERIAL TECHNOLOGY LABORATORY	0	0,000	51,896	99,029	9,384	
MATERIAL SYSTEMS ANALYSIS ACTIVITY	31	36,246	22,945	20,618	197,909	
MEDICAL BIOENGINEERING R&D LAB	215	104,156	20,618	200,000	20,117	
MEDICAL MATERIAL DEVELOPMENT ACTIVITY	11000	728,800	257,200	334,905	138,516	
MEDICAL R&D COMMAND	78	502,631	51,018	37,000	23,991	
FORT DETRICK, MD	0	60,000	44,473	6,200	12,244	
ABERDEEN PROV. GR, MD	0	53,155	14,000	0	0,735	
FORT DETRICK, MD	0	65,177	14,037	28,647	4,084	
HUNTSVILLE, AL	4	0	0	0	0,363	
NATICK, MA	0	0	0	0	0	
NATICK, MA	0	0	0	0	0	
NIGHT VISION AND ELECTRO-OPTICS LAB	0	0	0	0	0	
RESEARCH INST FOR GEN & SOCIAL SCI	0	0	0	0	0	
RSC INST OF ENVIRONMENTAL MEDICINE	4	0	0	0	0	

SIGNALS WARFARE LAB.
TANK AUTOMOTIVE RD&E CENTER
TROPIC TEST CENTER
WALTER REED ARMY INSTITUTE OF RESEARCH
WHITE SANDS MISSILE RANGE
YUMA PROVING GROUND

VINT HILL, VA.	10	9.710	35.475	7.440	4.200	9.920
WARREN, MI	1:	246.562	123.756	125.274	235.197	125.666
FT CLAYTON, PANAMA	2624	10.000	35.925	63.756	2.370	4.913
WASHINGTON, D.C.	203	183.274	61.600	0.000	10.080	26.053
WHITE SANDS NR, NM	1741360	62.129	674.356	4366.390	239.179	229.942
YUMA, AZ	636314	1.144	79.427	1510.461	64.790	122.824
TOTALS	4122683	6632.289	4428.339	14063.759	1447.067	1774.413

TABLE 3. NAVY R&E ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1965

INSTALLATION	FUNDING DATA (MILLIONS \$)			PERSONNEL DATA		
	TOTAL	INHOUSE	ROTSIE	TOTAL	MIL	CIV
AEROSPACE MEDICAL RESEARCH LABORATORY	6,544	6,544	5,136	377	56	9
AIR DEVELOPMENT CENTER	465,862	161,639	256,062	112,427	267	2574
AIR PROPULSION CENTER	55,356	34,758	50,721	30,676	6	711
AIR TEST CENTER	333,312	240,937	150,404	103,952	1695	2321
ATLANTIC PILOT WEAPONS TRAINING FACILITY	36,731	8,610	0,200	0,000	93	62
BIODYNAMICS LABORATORY	4,667	4,005	3,674	3,192	34	53
BIOSCIENCES LABORATORY	4,447	4,447	4,154	4,154	9	4
CIVIL ENGINEERING LABORATORY	53,040	27,131	42,080	21,000	17	391
CLOTHING & TEXTILE RESEARCH FACILITY	4,566	4,162	3,049	2,671	1	57
COASTAL SYSTEMS CENTER	97,105	61,347	65,007	40,951	132	1076
DAVID W. TAYLOR SHIP R&D CENTER	337,506	180,480	239,632	137,164	75	2686
DENTAL RESEARCH INSTITUTE	1,726	1,586	0,942	0,602	29	15
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	6,500	3,879	6,845	2,904	15	39
EXPLOSIVE ORDNANCE DISPOSAL TECH CEN	37,922	27,660	19,827	10,173	70	206
HEALTH RESEARCH CENTER	4,495	3,293	3,516	2,404	30	61
MEDICAL RESEARCH INSTITUTE	29,256	27,126	20,239	16,109	255	188
MEDICAL RESEARCH UNIT NO. 2	3,603	3,603	2,694	2,694	25	48
MEDICAL RESEARCH UNIT NO. 3	5,565	5,565	4,466	4,466	26	205
OCEAN RESEARCH & DEV ACT	42,877	30,767	39,809	27,795	17	319
OCEAN SYSTEMS CENTER	512,900	235,799	303,984	147,576	281	2948
OFFICE OF NAVAL RESEARCH	774,674	30,832	631,863	28,672	41	471
ARDNANCE MISSILE TEST STATION	16,814	4,264	9,705	2,911	69	60
PACIFIC MISSILE TEST CENTER	747,935	407,527	274,039	191,828	1077	4133
PERSONNEL RESEARCH & DEVELOPMENT CTR	37,791	21,551	19,863	13,116	27	329
RESEARCH LABORATORY	399,698	212,729	340,732	174,726	91	3279
SUBMARINE MEDICAL RESEARCH LABORATORY	3,476	3,298	2,279	2,279	34	55
SURFACE WEAPONS CENTER	542,195	207,699	309,901	123,676	156	5345
UNDERSEA RANGES DEPARTMENT	66,603	11,759	44,477	9,931	25	25
UNDERWATER SYSTEMS CENTER (HUSC)	481,855	199,010	206,068	111,064	84	3461
WEAPONS CENTER	667,047	284,262	347,955	165,794	567	5237
WEAPONS EVALUATION FACILITY	13,526	12,541	3,762	3,181	135	124
TOTALS	5799,606	2469,090	3414,285	1505,942	5307	36721

TABLE 4. NAVY RDT&E FACILITIES DATA, FY 1985

INSTA'LATION	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			REAL PROPERTY	EQUIPMENT	COST (MILLIONS \$)
	ACRES	LABORATORY	ADMIN			
AEROSPACE MEDICAL RESEARCH LABORATORY PENSACOLA, FL	1	107,780	6,632	2,554	2,818	5,486
AIR DEVELOPMENT CENTER WILMINGTON, PA	640	669,000	84,000	654,000	38,396	72,868
AIR PROPULSION CENTER TRENTON, NJ	68	486,390	27,962	92,816	52,190	11,135
AIR TEST CENTER PATUXENT RIVER, MD	7123	1261,133	433,407	248,753	179,600	76,222
ATLANTIC FLEET WEAPONS TRAINING FACILITY NEW ORLEANS, LA	1	35,792	14,957	225,152	19,268	135,179
BIODYNAMICS LABORATORY NSC OAKLAND, CA	5	77,625	24,452	0,000	2,070	0,279
CIVIL ENGINEERING LABORATORY PORT HUENEME, CA	32	112,965	8,731	34,646	1,000	6,962
CLOTHING & TEXTILE RESEARCH FACILITY NATICK, MA	1	12,660	7,746	16,493	0,727	5,670
COASTAL SYSTEMS CENTER PANAMA CITY, FL	648	358,558	37,914	401,454	49,323	876
BETHESDA, MD	423	1815,000	99,000	332,000	75,019	27,571
DENTAL RESEARCH INSTITUTE MTC GREAT LAKES, IL	1	21,264	6,001	9,316	0,000	95,116
ENVIRONMENTAL PREDICTION RESEARCH FACILITY MONTEREY, CA	0	2,106	15,578	5,586	0,000	0,102
EXPLOSIVE ORDNANCE DISPOSAL TECH CEN INDIAN HEAD, MD	1172	71,576	22,176	90,643	5,987	2,307
HEALTH RESEARCH CENTER SAN DIEGO, CA	1	19,052	7,159	0,000	0,147	5,201
MEDICAL RESEARCH INSTITUTE BETHESDA, MD	4	159,933	11,720	47,210	0,303	1,734
MEDICAL RESEARCH UNIT NO. 2 MANILA, PHILIPPINES	1	15,439	6,654	2,400	0,000	16,680
MEDICAL RESEARCH UNIT NO. 3 CAIRO, EGYPT	5	69,472	8,962	61,072	9,054	0,371
OCEAN RESEARCH & DEV ACT POINT MUGU, CA	5	92,647	35,342	76,817	17,203	1,184
OCEAN SYSTEMS CENTER SAN DIEGO, CA.	2719	1290,967	198,370	192,920	56,087	16,927
OFFICE OF NAVAL RESEARCH ARLINGTON, VIRGINIA	0	0,080	89,022	12,085	0,000	62,956
ORDNANCE MISSILE TEST STATION WHITE SANDS, NM	95	10,324	59,798	166,886	6,213	6,400
PACIFIC MISSILE TEST CENTER POINT MUGU, CA	27088	1287,000	347,500	3665,400	187,106	195,174
PERSONNEL RESEARCH & DEVELOPMENT CTR SAN DIEGO, CA	3	65,792	18,417	0,000	6,700	10,890
RESEARCH LABORATORY WASHINGTON, DC	1072	2352,236	192,677	466,809	101,754	152,075
SUBMARINE MEDICAL RESEARCH LABORATORY GROTON, CT	1	40,514	14,099	0,000	1,315	2,485
SURFACE WEAPONS CENTER DANLIGREN, VIRGINIA	5063	1657,760	169,154	1111,309	108,606	195,236
UNDERSEA RANGES DEPARTMENT NEWPORT, RI	594	82,322	13,216	335,132	30,151	6,690
UNDERWATER SYSTEMS CENTER (NUSEC) CHINA LAKE, CA	379	1118,991	221,281	532,819	65,356	63,282
WEAPONS CENTER ALBUQUERQUE, NM	1127267	2143,439	193,080	2907,156	239,674	126,212
WEAPONS EVALUATION FACILITY	7	23,000	34,000	95,000	9,600	2,256
TOTALS		117069	15602,731	2399,214	11790,032	1296,054

TABLE 5. AIR FORCE ROTATE ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1985

INSTALLATION	FUNDING DATA (MILLIONS \$)			PERSONNEL DATA		
	TOTAL INHOUSE RD&TE	TOTAL INHOUSE RD&TE	TOTAL INHOUSE RD&TE	PHD CIV MIL	PHD CIV MIL	PHD CIV MIL
AERO PROPULSION LABORATORY	137.651	25.605	135.316	23.470	56	325
AEROSPACE MEDICAL RESEARCH LAB	47.696	10.666	42.465	10.391	131	63
ARMAMENT DIVISION	1721.852	276.737	559.809	177.872	5146	24
ARMAMENT LABORATORY	76.956	31.522	77.604	30.162	147	307
ARMED ENGINEERING DEVELOPMENT CENTER	281.876	97.638	274.605	90.367	171	252
AVIONICS LABORATORY	420.381	40.402	412.970	32.991	148	576
EASTERN SPACE AND MISSILE CENTER	510.972	255.549	0.000	0.000	2592	32
ENGINEERING & SERVICES CTR / RD	41.326	4.883	57.694	1.508	71	1133
FLIGHT DYNAMICS LABORATORY	210.216	42.441	202.786	35.011	171	628
FLIGHT TEST CENTER	374.747	268.129	197.229	133.133	3414	16
FRANK J. SEILER RESEARCH LABORATORY	2.537	2.537	1.634	1.634	23	9
GEOPHYSICS LABORATORY	115.851	36.666	108.432	32.503	125	476
HUMAN RESOURCES LABORATORY	66.867	17.604	56.123	12.526	185	36
MATERIALS LABORATORY	157.306	25.537	154.806	23.037	51	235
OFFICE OF SCIENTIFIC RESEARCH	197.548	3.324	144.184	0.000	65	103
ROCKET PROPULSION LABORATORY	68.850	21.847	63.047	16.044	171	27
ROME AIR DEVELOPMENT CENTER	396.658	49.472	502.100	40.764	216	1099
SCHOOL OF AEROSPACE MEDICINE	27.260	15.076	26.576	14.388	360	40
WEAPONS LABORATORY	273.285	107.306	255.352	89.373	607	55
WESTERN SPACE AND MISSILE CENTER	166.272	11.972	4.507	0.000	337	426
4950TH TEST WING	113.611	97.745	63.991	71.625	888	3
6585TH TEST GROUP	46.998	26.364	31.866	19.024	326	276
TOTALS	5416.729	1470.824	3175.312	606.645	15223	12445

TABLE 6. AIR FORCE RDT&E FACILITIES DATA, FY 1985

INSTALLATION	SPACE AND PROPERTY, SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLIONS \$)
	REAL	PROPERTY	EQUIPMENT	
AERO PROPULSION LABORATORY				
HIAFB, OHIO	42	240,744	66,206	104,396
HIAFB, OH	50	119,000	1,000	100,000
ARMED SERVICES MEDICAL RESEARCH LAB				
EGI IN AFB, FL	456,616	347,391	968,286	870,309
EGIN AFB, FL	0	51,345	0,000	147,200
ARMAMENT LABORATORY				
TULLAKOMA, TN.	39081	1173,658	302,784	709,364
ARNOLD ENGINEERINE DEVELOPMENT CENTER				
HIAFB, OHIO	220	179,369	9,483	705,264
AVIONICS LABORATORY				
PATRICK AFB, FL	26178	2,20,172	1177,704	4789,850
TYNDALL AFB, FL	3	12,000	14,000	0,000
FLIGHT DYNAMICS LABORATORY				
HIAFB, OHIO	76	27,586	5,400	294,233
EDWARDS AFB, CA	297796	16,136	264,473	7663,808
USAFRL, COL SPRNGS, CR	0	190,000	3,000	0,000
FRANK J. SEILER RESEARCH LABORATORY				
BEDFORD, MA	336	395,732	14,821	25,883
BRECKS AFB, TX	;	61,180	65,319	53,232
HIAFB, OHIO	15	168,750	117,941	54,123
HASHINGTON, DC	0	0,000	36,688	5,126
EDWARD3 AFB, CA	68345	419,066	66,848	4,780
GEOPHYSICS LABORATORY				
HUMAN RESOURCES LABORATORY				
MATERIALS LABORATORY				
OFFICE OF SCIENTIFIC RESEARCH				
ROCKET PROPULSION LABORATORY				
ROME AIR DEVELOPMENT CENTER				
SCHOOL OF AEROSPACE MEDICINE				
WEAPONS LABORATORY				
WESTERN SPACE AND MISSILE CENTER				
4950TH TEST WING				
4950TH TEST GROUP				
HOLLOWKN AFB, NM	7052	407,068	39,081	93,979
TR ALP	958523	7479,623	4020,566	25341,480
				2533,523
				2348,772

TABLE 7. DEPARTMENT OF DEFENSE R&D ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1965

INSTALLATION	FUNDING DATA (MILLIONS \$)			PERSONNEL DATA								
	TOTAL	INHOUSE	RD&AE	TOTAL	INHOUSE	RD&AE	MIL	CIV	MIL	CIV	MIL	CIV
ARMED FORCES RADIobiology RESEARCH INSTITUTE	17,020	17,020	13,640	13,640	13,640	13,640	92	155	19	22	49	61
TOTALS	17,020	17,020	13,640	13,640	13,640	13,640	92	155	19	22	49	61

SUMMARY

DEPARTMENT OF DEFENSE IN-HOUSE R&D LABORATORIES

PROGRAM DATA FOR FY 1985

	(MILLIONS)
TOTAL ANNUAL LABORATORY PROGRAM	9858.971
TOTAL INHOUSE PROGRAM	8509.467
TOTAL RDT&E PROGRAM	6452.048
TOTAL INHOUSE RDT&E	2406.988
TOTAL ANNUAL OPERATING COST	1097.852

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD	TOTAL PROFESSIONALS
MILITARY	6959	674	8742
CIVILIAN	51150	8721	26708
TOTAL	58109	4895	30450

PHYSICAL FACILITIES (END OF FY 1985)

ACRES	1235526
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SPACE (THOUSANDS OF SQ FT)

LABORATORY	24268.466
ADMINISTRATIVE	4725.946
OTHER	11756.501
TOTAL	40750.918

COST (MILLIONS)

REAL PROPERTY	2126.988
EQUIPMENT	2482.706
TOTAL	4609.644

TABLE 1A. ARMY R&D LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1985

FUNDING DATA (MILLIONS \$)

PERSONNEL DATA

INSTALLATION	TOTAL	INHOUSE	RD&E	TOTAL	INHOUSE	RD&E	TOTAL	RD&E	MIL	CIV	FND	RD&E	TOTAL	INHOUSE	RD&E	TOTAL	MIL	CIV	FND
AEROMEDICAL RESEARCH LABORATORY	11.072	10.241	8.349	7.516	7.2	70	13	9	44	26									
ATMOSPHERIC SCIENCES LABORATORY	40.114	23.772	36.576	22.558	58	403	1	32	5	127									
AVIATION RESEARCH + TECH ACTIVITY	153.600	42.100	146.857	38.188	24	365	1	26	19	258									
AVIONICS R&D ACTIVITY	35.570	12.650	23.964	6.931	17	259	0	4	13	141									
BALLISTIC RESEARCH LABORATORY	161.640	64.441	135.319	63.391	14	743	1	111	10	473									
BELVOIR RESEARCH & DEV CENTER	221.414	62.651	139.491	45.940	59	1040	2	24	59	616									
CHEMICAL RESEARCH & DEVELOPMENT CENTER	163.689	76.664	141.807	53.982	99	980	5	61	41	705									
COLD REGIONS RESEARCH & ENGINEERING LAB	25.121	17.726	13.170	6.034	15	276	0	30	6	221									
COMMUNICATIONS ELECTRONICS R&D CENTER	92.961	27.354	75.635	22.684	13	664	0	9	6	543									
CONSTRUCTION ENGINEERING RESEARCH LAB	40.926	19.658	36.276	17.350	4	259	0	34	4	184									
ELECTRONIC WARFARE LABORATORY	350.283	34.755	120.627	18.005	26	349	0	7	14	89									
ELECTRONICS TECHNOLOGY AND DEVICES LAB	67.812	22.995	79.865	17.430	1	290	0	36	0	185									
ENGINEER TOPOGRAPHIC LABORATORIES	35.654	12.138	32.702	9.879	11	297	0	18	14	186									
ENGINEER WATERWAYS EXPERIMENT STA.	114.290	91.545	49.773	40.636	17	1642	2	114	17	675									
FIRE CONTROL & SMALL CAL. WPN'S SYS. LAB	109.691	62.538	61.058	26.650	15	848	0	29	9	483									
HARRY DIAMOND LABORATORIES	165.459	99.263	92.122	74.846	3	1016	1	49	5	497									
HUMAN ENGINEERING LABORATORY	18.465	16.674	17.876	14.090	35	176	1	16	16	126									
INSTITUTE OF DENTAL RESEARCH	6.326	6.245	6.625	4.675	60	20	9	2	36	4									
INSTITUTE OF SURGICAL R&D	6.869	6.869	5.360	3.360	156	72	18	6	52	34									
LARGE CALIBER WEAPONS SYSTEMS LAB	263.223	137.129	206.023	60.179	27	1726	0	60	20	1069									
LETTERMAN ARMY INSTITUTE OF RESEARCH	21.312	16.269	16.422	11.379	155	99	27	16	74	48									
MATERIALS TECHNOLOGY LABORATORY	59.391	37.676	52.652	33.183	14	617	2	66	11	241									
MEDICAL BIOENGINEERING R&D LAB	16.585	8.499	13.906	6.380	30	92	100	20	410	350									
MEDICAL R & D COMMAND	13.064	10.749	9.495	7.180	60	175	23	0	44	11									
MEDICAL R&D INST OF CHEMICAL DEFENSE	42.604	19.846	38.882	16.182	85	155	31	26	39	56									
MEDICAL PSCH INST OF INFECTIOUS DIS.	38.994	28.995	30.448	20.449	295	192	50	37	85	94									
MISSILE LABORATORY	241.548	113.513	192.310	71.127	41	883	0	54	31	590									
MATICK RESEARCH DEVELOPMENT AND EMERG CTR	136.285	54.611	61.273	41.554	102	1094	3	77	30	549									
NIGHT VISION AND ELECTRO-OPTICS LAB	172.546	39.622	111.941	34.677	33	476	1	35	13	262									
RESEARCH INST FOR BEH & SOCIAL SCI	76.852	24.420	70.241	22.069	56	342	2	167	36	234									
RSCH INST OF ENVIRONMENTAL MEDICINE	11.812	6.337	10.116	6.641	73	84	19	25	50	58									
SIGNALS MARSHAL LAB.	306.681	11.550	60.823	5.642	65	205	0	4	13	175									
TANK AUTOMOTIVE R&D CENTER	122.270	40.373	101.096	23.517	29	775	0	17	22	363									
WALTER REED ARMY INSTITUTE OF RESEARCH	103.234	59.158	84.639	40.567	451	554	98	68	301	232									
TOTALS	3513.765	1338.720	2285.523	694.675	2217	17152	410	1331	1551	9629									

TABLE 2A. ARMY RAD FACILITIES DATA, FY 1985

INSTALLATION	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			REAL PROPERTY	EQUIPMENT	COST (MILLIONS \$)
	ACRES	LABORATORY	ADMIN			
FT. RUCKER, AL	53	89,572	16,000	10,669	7,506	13,519
WHITE SANDS NM, NM	15	51,541	26,663	67,656	20,213	23,194
HOFFETT FIELD, CA	127	88,846	58,673	16,370	2,272	19,439
FORT MONMOUTH, NJ	2	52,450	13,665	19,100	0,000	11,344
ABERDEEN PROV. GR., MD	1920	375,522	116,705	53,044	9,085	55,000
FORT BELVOIR, VA	1052	359,261	166,816	260,594	19,598	39,194
ABERDEEN PRO, MD	3471	420,073	346,763	567,290	25,060	52,317
HANOVER, NH	31	108,797	30,027	145,146	15,995	11,652
FT. MONMOUTH N.J.	0	39,506	96,976	6,485	0,000	23,700
CHAMPAIGN, IL	31	45,876	41,549	30,335	10,009	10,000
FT. MONMOUTH, NJ	106	112,276	35,107	8,189	6,775	10,346
FT. MONMOUTH N.J.	0	58,763	35,837	0,000	0,000	19,000
FORT BELVOIR, VA	33	90,722	7,000	13,300	6,300	14,612
VICKSBURG, MS	3073	1743,060	353,645	176,809	42,309	51,700
DOVER, NJ	7	177,420	103,980	4,667	10,125	29,950
ADELPHI, MD	2316	507,629	112,019	121,492	53,921	57,071
ABERDEEN PROV. GR., MD	72	111,524	7,056	21,400	10,026	8,507
WASHINGTON, D.C.	0	9,852	5,696	1,200	2,610	3,626
FT SAM HOUSTON, TX	1	26,424	1,800	22,400	5,432	5,091
DOVER, N.J.	17	407,992	235,400	95,000	17,732	29,620
PRES. OF SAN FRA, CA	9	119,284	56,941	112,174	43,779	11,955
WATERDOWN, MA	37	352,000	88,261	48,375	14,879	24,470
FORT DETRICK, MD	5	23,691	42,773	13,389	3,836	4,644
FORT DETRICK, MD	0	0,000	51,896	0,000	0,650	3,450
ABERDEEN PROV. GR., MD	31	36,246	22,945	99,029	9,384	16,703
FORT DETRICK, MD	215	104,136	20,616	197,909	20,117	14,734
HUNTSVILLE, AL	1100	726,800	257,200	200,000	136,516	126,252
NATICK, MA	70	502,631	51,018	334,905	23,991	29,854
FT. BELVOIR, VA	9	80,000	44,473	37,000	12,244	38,499
ALEX, VA	0	53,155	14,000	6,204	0,735	0,862
NATICK, MA	4	65,177	14,037	28,641	4,084	8,360
VANT HILL, VA.	10	9,710	35,475	7,440	4,200	9,920
MARSHALL, MI	11	246,562	123,756	125,274	235,197	125,666
WASHINGTON, D.C.	203	383,274	61,600	0,000	10,080	28,053
TOTALS	23930	7581,916	2722,369	2841,482	767,162	934,112

TABLE 3A. NAVY R&D LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1965

INSTALLATION	FUNDING DATA (MILLIONS \$)						PERSONNEL DATA					
	TOTAL	INHOUSE	RD&AE	MIL	CIV	PROF	TOTAL	INHOUSE	RD&AE	MIL	CIV	PROF
AEROSPACE MEDICAL RESEARCH LABORATORY	6.544	6.544	5.136	5.136	9	13	17	34	37	56	9	17
AIR DEVELOPMENT CENTER	465.862	181.039	258.062	112.427	267	2574	3	62	75	1540		
BIODYNAMICS LABORATORY	4.687	4.005	3.874	3.192	34	53	5	3	19	19		
CIVIL ENGINEERING LABORATORY	4.447	4.447	4.154	4.154	9	4	3	0	32	7	223	0
CLOTHING & TEXTILE RESEARCH FACILITY	53.040	27.131	42.080	21.000	17	391	0	32	0	1	1	63
COASTAL SYSTEMS CENTER	4.566	4.162	3.049	2.671	1	57						
DAVID M. TAYLOR SHIP R&D CENTER	97.105	61.347	65.007	40.951	132	1076	0	41	41	13	531	
DENTAL RESEARCH INSTITUTE	337.506	160.489	236.632	137.164	75	2086	2	125	277	1385		
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	1.726	1.586	0.942	0.802	29	15	10	4	13	15		
HEALTH RESEARCH CENTER	8.580	5.679	6.845	2.904	15	39	0	12	6	44		
MEDICAL RESEARCH INSTITUTE	4.405	3.293	3.516	2.404	30	61	6	11	22	23		
MEDICAL RESEARCH UNIT MD. 2	29.256	27.126	20.239	18.109	255	186	54	39	103	114		
MEDICAL RESEARCH UNIT MD. 3	3.683	3.683	2.694	2.694	25	48	9	4	24	44		
OCEAN RESEARCH & DEV ACT	5.565	5.565	4.466	4.466	26	205	12	16	16	66		
OCEAN SYSTEMS CENTER	42.877	30.767	39.809	27.785	17	319	0	70	13	205		
PERSONNEL RESEARCH & DEVELOPMENT CTR	512.900	235.799	303.984	147.576	261	2940	1	196	55	1541		
RESEARCH LABORATORY	37.791	21.551	19.863	13.116	27	329	1	103	14	236		
SUBMARINE MEDICAL RESEARCH LABORATORY	399.698	212.729	340.732	174.726	91	3279	2	701	34	1584		
SURFACE WEAPONS CENTER	3.478	3.298	2.279	2.279	34	55	6	14	12	28		
UNDERSEA RANGES DEPARTMENT	542.195	207.699	309.901	123.474	106	5345	0	243	36	2438		
UNDERWATER SYSTEMS CENTER (UNASC)	68.603	11.759	44.477	9.931	25	25	0	2	18	13		
WEAPONS CENTER	481.655	199.010	206.066	111.064	64	3461	0	86	73	1938		
	667.047	284.262	347.955	165.794	567	5237	0	94	42	1803		
TOTALS	5703.356	1721.961	2273.764	1134.599	2186	26653	125	1874	651	13870		

TABLE 4A. NAVY RAD FACILITIES DATA, FY 1985

INSTALLATION	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLIONS \$)
	ACRES	LABORATORY	OTHER	
AEROSPACE MEDICAL RESEARCH LABORATORY	1	107.780	6.632	2,618
AIR DEVELOPMENT CENTER	640	669.000	654.000	36,396
DICODYNAMICS LABORATORY	1	35.702	24.452	2,070
BIOSCIENCES LABORATORY	5	77.625	8.731	34,646
CIVIL ENGINEERING LABORATORY	32	112.965	7.746	16,493
CLOTHING & TEXTILE RESEARCH FACILITY	1	12.660	10.200	3,600
COASTAL SYSTEMS CENTER	648	358.558	37.914	401,454
DAVID W. TAYLOR SHIP RAD CENTER	323	1615.000	99.000	332,000
DENTAL RESEARCH INSTITUTE	1	21.264	6.001	9,318
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	0	2.106	15.578	5,588
HEALTH RESEARCH CENTER	1	19.052	7.159	0.000
MEDICAL RESEARCH INSTITUTE	4	159.933	11.720	47,210
MEDICAL RESEARCH UNIT NO. 2	1	15.639	6.654	2,400
MEDICAL RESEARCH UNIT NO. 3	5	69.472	8.962	61,072
OCEAN RESH & DEV ACT	5	92.647	35.342	76,817
OCEAN SYSTEMS CENTER	2719	1290.967	198.370	192.920
PERSONNEL RESEARCH & DEVELOPMENT CTR	3	65.792	18.417	0.000
RESEARCH LABORATORY	1072	2352.238	192.677	466,809
SUBMARINE MEDICAL RESEARCH LABORATORY	1	40.514	14.099	0.000
SURFACE WEAPONS CENTER	5083	1657.760	169.159	1111.309
UNDERSEA RANGES DEPARTMENT	594	82.322	13.216	335.132
UNDERWATER SYSTEMS CENTER (NUSC)	379	1116.991	221.281	532.619
WEAPONS CENTER	1127267	2143.439	193.060	2907.156
CHINA LAKE, CA	1138986	12541.226	1390.392	7193.297
TOTALS				620,751
				661,253

TABLE SA. AIR FORCE RAD LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1985

INSTALLATION	FUNDING DATA (MILLIONS \$)						PERSONNEL DATA					
	TOTAL	INHOUSE	RD&E	RD&E	TOTAL	INHOUSE	MIL	CIV	MIL	CIV	MIL	CIV
AERO PROPULSION LABORATORY	137.651	25.805	135.316	23.470	56	328	4	21	54	207		
AEROSPACE MEDICAL RESEARCH LAB	47.696	10.666	42.485	10.391	131	164	10	31	63	99		
ARMAMENT LABORATORY	78.946	31.522	77.606	30.162	147	307	1	16	185	225		
AVIONICS LABORATORY	420.381	60.402	412.970	32.991	148	578	3	32	131	387		
ENGINEERING & SERVICES CTR / RD	41.326	4.683	37.694	1.506	71	36	7	3	33	22		
FLIGHT DYNAMICS LABORATORY	210.216	42.441	202.786	35.011	171	626	1	30	139	415		
FRANK J. SEELER RESEARCH LABORATORY	2.537	2.537	1.834	1.834	23	9	9	1	18	5		
GEOPHYSICS LABORATORY	115.851	36.666	108.432	32.503	125	674	2	69	65	264		
HUMAN RESOURCES LABORATORY	66.867	17.604	58.123	12.526	185	235	12	39	105	133		
MATERIALS LABORATORY	157.306	25.537	154.806	23.037	51	296	4	54	46	236		
ROCKET PROPULSION LABORATORY	68.850	21.847	63.047	16.064	171	245	2	17	71	100		
ROME AIR DEVELOPMENT CENTER	396.658	49.472	302.100	40.784	218	1099	3	65	152	685		
SCHOOL OF AEROSPACE MEDICINE	27.260	15.078	26.570	14.388	360	269	40	41	69	108		
WEAPONS LABORATORY	273.285	107.306	255.352	69.373	607	522	22	55	360	262		
TOTALS	2044.850	431.766	1879.121	364.024	2464	5190	120	494	1491	3146		

TABLE 6A. AIR FORCE R&D FACILITIES DATA, FY 1985

INSTALLATION	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLIONS \$)
	ACRES	LABORATORY	OTHER	
AERO PROPULSION LABORATORY	ADMIN	66.206	104.396	63.156
AEROSPACE MEDICAL RESEARCH LAB	6.2	280.744	1.000	42.061
ARMAMENT LABORATORY	30	119.000	0.000	14.971
AVIONICS LABORATORY	0	51.345	0.000	13.253
ENGINEERING & SERVICES CTR / RD	220	229.369	9.483	53.959
FLIGHT DYNAMICS LABORATORY	3	12.000	14.000	405.264
FRANK J. SEYLER RESEARCH LABORATORY	76	271.586	5.400	1.960
GEOPHYSICS LABORATORY	USAFA, COLO SPRGS, CO	190.000	3.000	294.233
HUMAN RESOURCES LABORATORY	SEAFORD, MA	336	395.732	0.000
MATERIALS LABORATORY	BROOKS AFB, TX	5	61.180	14.821
ROCKET PROPULSION LABORATORY	NPAFB, OHIO	15	188.750	65.319
ROME AIR DEVELOPMENT CENTER	EDWARDS AFB, CA	60345	117.941	53.232
SCHOOL OF AEROSPACE MEDICINE	GRIFFISS AFB, NY	419.046	86.848	54.123
WEAPONS LABORATORY	BROOKS AFB, TX.	1517	764.945	4.780
	ALBUQUERQUE, NM	1309	409.974	52.839
		702	705.130	102.271
TOTALS		72600	4116.801	1665.138
				1665.162
				505.610
				669.121

TABLE 7A. DEPARTMENT OF DEFENSE R&D FACILITIES DATA, FY 1985

INSTALLATION	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLIONS \$)
	ACRES	LABORATORY	ADMIN	
ARMED FORCES RADIOBIOLOGY RESEARCH INSTITUTE BETHESDA, MD	10	26.523	16.047	56.540
TOTALS	10	26.523	16.047	56.540

TABLE 8 - ARMY RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

	<u>COMMAND CHAIN</u>	<u>COMMAND</u>
	<u>INTERMEDIATE</u>	
AEROMEDICAL RESEARCH LABORATORY	MEDICAL R&D COMMAND	THE SURGEON GENERAL
ATMOSPHERIC SCIENCES LABORATORY	ELECTRONICS R&D CMD	MATERIEL COMMAND
AVIATION R&T ACTIVITY	AVIATION SYSTEMS COMMAND	MATERIEL COMMAND
AVIONICS R&D ACTIVITY	AVIATION SYSTEMS COMMAND	MATERIEL COMMAND
BALLISTIC RESEARCH LABORATORY	ARMAMENT MUN & CH. COMMAND	MATERIEL COMMAND
BELVOIR RESEARCH AND DEVELOPMENT CENTER	TROOP SUPPORT COMMAND	MATERIEL COMMAND
CHEMICAL RESEARCH AND DEVELOPMENT CENTER	ARMAMENT MUN & CH. COMMAND	MATERIEL COMMAND
COLD REGIONS R&E LABORATORY	--	CHIEF OF ENGINEERS
COMMUNICATIONS-ELECTRONICS R&D CENTER	COMMUNICATIONS-ELECTRONICS COMMAND	MATERIEL COMMAND
CONSTRUCTION ENGINEERING RSCH LABORATORY	--	CHIEF OF ENGINEERS
ELECTRONIC WARFARE LABORATORY	ELECTRONICS R&D COMMAND	MATERIEL COMMAND
ELECTRONICS TECHNOLOGY & DEVICES LABORATORY	ELECTRONICS R&D COMMAND	MATERIEL COMMAND
ENGINEER TOPOGRAPHIC LABORATORIES	--	CHIEF OF ENGINEERS
ENGINEER WATERWAYS EXPERIMENT STATION	--	CHIEF OF ENGINEERS
FIRE CONTROL & SMALL CALIBER WPNS SYSTEMS LAB	ARMAMENT MUN & CH. COMMAND	MATERIEL COMMAND
HARRY DIAMOND LABORATORIES	ELECTRONICS R&D COMMAND	MATERIEL COMMAND
HUMAN ENGINEERING LABORATORY	--	MATERIEL COMMAND
INSTITUTE OF DENTAL RESEARCH	MEDICAL R&D COMMAND	THE SURGEON GENERAL
INSTITUTE OF SURGICAL RESEARCH	MEDICAL R&D COMMAND	THE SURGEON GENERAL
LARGE CALIBER WEAPONS SYSTEMS LABORATORY	ARMAMENT MUN & CH. COMMAND	MATERIEL COMMAND
LETTERMAN ARMY INSTITUTE OF RESEARCH	MEDICAL R&D COMMAND	THE SURGEON GENERAL
MATERIALS TECHNOLOGY LABORATORY	--	MATERIEL COMMAND
MEDICAL BIOENGINEERING R&D LABORATORY	MEDICAL R&D COMMAND	THE SURGEON GENERAL
MEDICAL R&D COMMAND	--	THE SURGEON GENERAL
MEDICAL RESEARCH INSTITUTE OF CHEMICAL DEFENS.	MEDICAL R&D COMMAND	THE SURGEON GENERAL
MEDICAL RESEARCH INST OF INFECTIOUS DISEASES	MEDICAL R&D COMMAND	THE SURGEON GENERAL
MISSILE LABORATORY	MISSILE COMMAND	MATERIEL COMMAND
NATICK RESEARCH, DEVELOPMENT & ENG. CENTER	TROOP SUPPORT COMMAND	MATERIEL COMMAND
NIGHT VISION & ELECTRO-OPTICS LABORATORY	ELECTRONICS R&D COMMAND	MATERIEL COMMAND

TABLE 8 - ARMY RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

	<u>COMMAND CHAIN</u>	<u>COMMAND</u>
<u>INTERMEDIATE</u>		
RES INST FOR BEHAVIORAL & SOCIAL SCIENCES	--	DEPUTY CHIEF OF STAFF FOR PERSONNEL.
RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE	MEDICAL R&D COMMAND	THE SURGEON GENERAL
SIGNALS WARFARE LABORATORY	ELECTRONICS R&D CMD	MATERIEL COMMAND
TANK AUTOMOTIVE COMMAND RD&E CENTER	TANK AUTOMOTIVE COMMAND	MATERIEL COMMAND
WALTER REED ARMY INSTITUTE OF RESEARCH	MEDICAL R&D COMMAND	THE SURGEON GENERAL.

TABLE 9 - NAVY RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

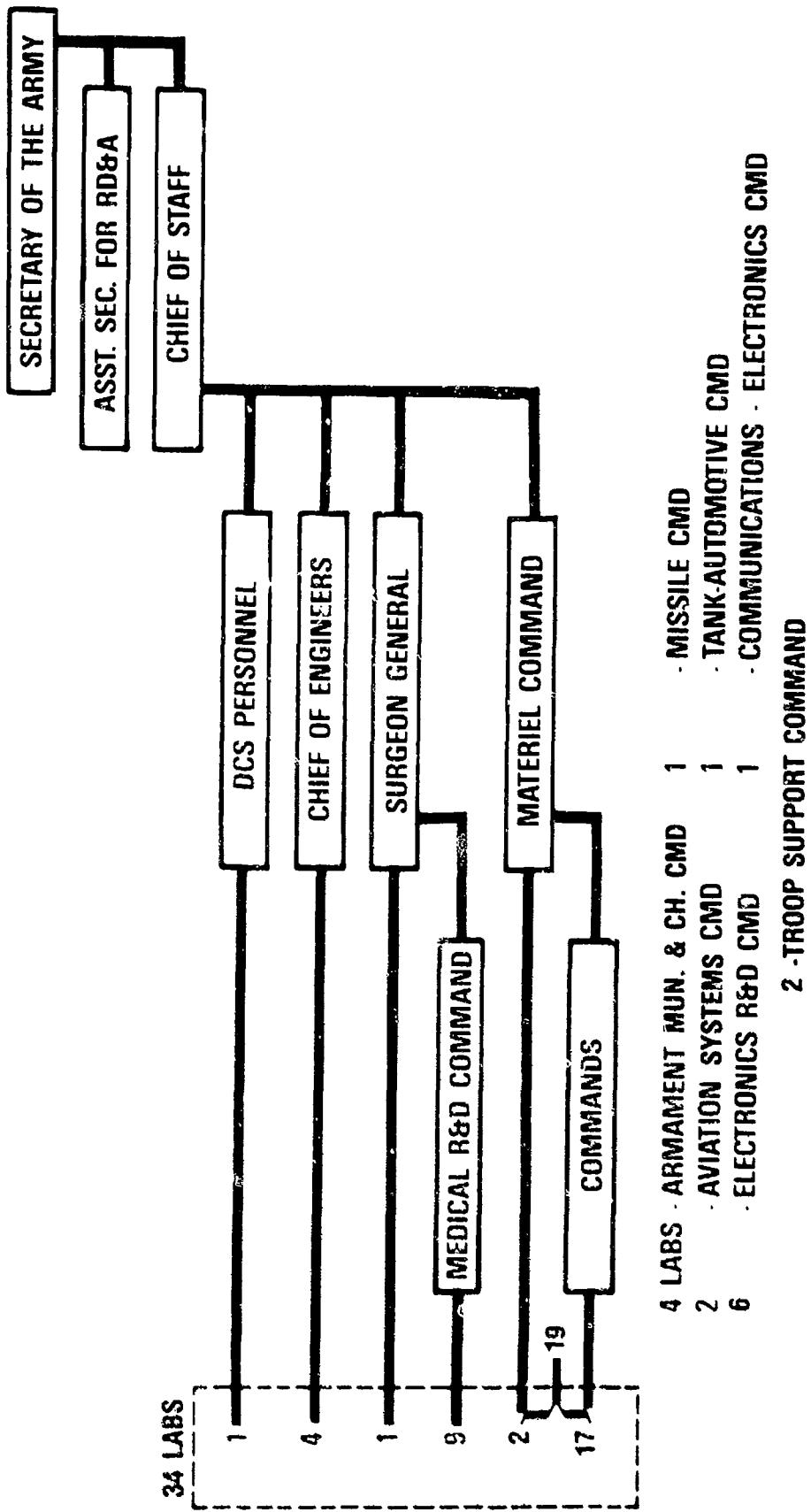
	<u>COMMAND CHAIN</u>	<u>COMMAND</u>
	<u>INTERMEDIATE</u>	
AEROSPACE MEDICAL RESEARCH LABORATORY	MEDICAL R&D COMMAND	NAVAL MEDICAL COMMAND
AIR DEVELOPMENT CENTER	OFFICE OF NAVY LABS	CHIEF OF NAVAL RESEARCH (NOTE)
BIODYNAMICS LABORATORY	MEDICAL R&D COMMAND	NAVAL MEDICAL COMMAND
BIOSCIENCES LABORATORY	--	CHIEF OF NAVAL RESEARCH
CIVIL ENGINEERING LABORATORY		NAVAL FAC ENG COMMAND
CLOTHING AND TEXTILE RESEARCH FACILITY	NAVY RESALE & SER SPT OFC	NAVAL SUPPLY SYS COMMAND
COASTAL SYSTEMS CENTER	OFFICE OF NAVY LABS	CHIEF OF NAVAL RESEARCH (NOTE)
DAVID W. TAYLOR SHIP R&D CENTER	OFFICE OF NAVY LABS	CHIEF OF NAVAL RESEARCH (NOTE)
DENTAL RESEARCH INSTITUTE	MEDICAL R&D COMMAND	NAVAL MEDICAL COMMAND
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	--	CHIEF OF NAVAL RESEARCH
HEALTH RESEARCH CENTER	MEDICAL R&D COMMAND	NAVAL MEDICAL COMMAND
MEDICAL RESEARCH INSTITUTE	MEDICAL R&D COMMAND	NAVAL MEDICAL COMMAND
MEDICAL RESEARCH UNIT NO. 2	MEDICAL R&D COMMAND	NAVAL MEDICAL COMMAND
MEDICAL RESEARCH UNIT NO. 3	MEDICAL R&D COMMAND	NAVAL MEDICAL COMMAND
OCEAN R&D ACTIVITY	--	CHIEF OF NAVAL RESEARCH
OCEAN SYSTEMS CENTER	OFFICE OF NAVY LABS	CHIEF OF NAVAL RESEARCH (NOTE)
PERSONNEL RESEARCH & DEVELOPMENT CENTER	OFFICE NAVY LABS	CHIEF OF NAVAL RESEARCH (NOTE)
RESEARCH LABORATORY	--	CHIEF OF NAVAL RESEARCH
SUBMARINE MEDICAL RESEARCH LABORATORY	MEDICAL R&D COMMAND	NAVAL MEDICAL COMMAND
SURFACE WEAPONS CENTER	OFFICE OF NAVY LABS	CHIEF OF NAVAL RESEARCH (NOTE)
UNDERSEAS RANGES DEPARTMENT ¹	OFFICE OF NAVY LABS	CHIEF OF NAVAL RESEARCH (NOTE)
UNDERWATER SYSTEMS CENTER	OFFICE OF NAVY LABS	CHIEF OF NAVAL RESEARCH (NOTE)
WEAPONS CENTER	OFFICE OF NAVY LABS	CHIEF OF NAVAL RESEARCH (NOTE)

NOTE: Command chain shown as of 30 Sep 1985; for FY 1986, Command 1s Space and Naval Warfare Systems Command

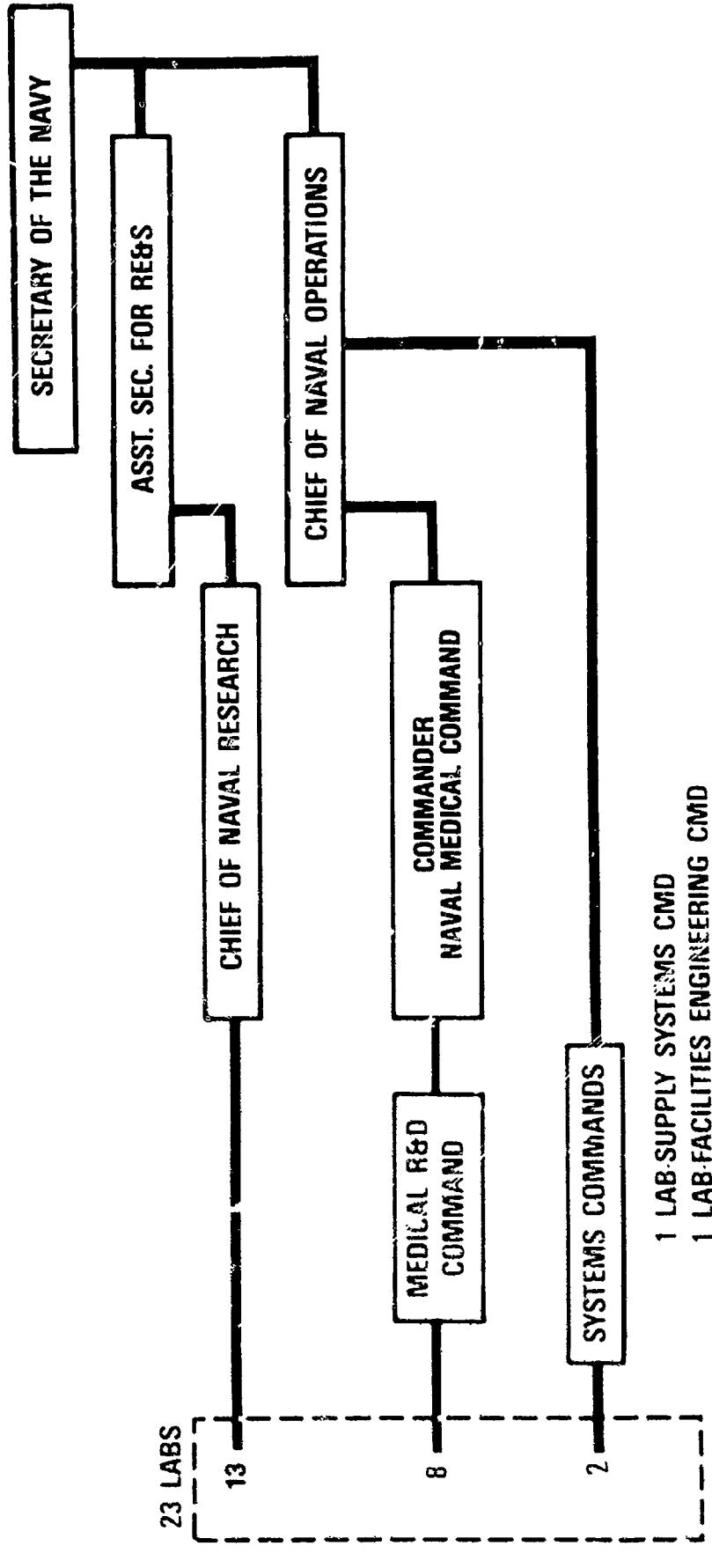
TABLE 10 AIR FORCE RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

	<u>COMMAND CHAIN</u>	<u>COMMAND</u>
	<u>INTERMEDIATE</u>	
AEROPROPULSION LABORATORY	WRIGHT AERONAUTICAL LABS	AF SYSTEMS COMMAND
AEROSPACE MEDICAL RESEARCH LABORATORY	AEROSPACE MEDICAL DIVISION	AF SYSTEMS COMMAND
ARMAMENT LABORATORY	ARMAMENT DIVISION	AF SYSTEMS COMMAND
AVIONICS LABORATORY	WRIGHT AERONAUTICAL LABS	AF SYSTEMS COMMAND
ENGINEERING SERVICES LABORATORY	ENGINEERING SVCS CTR/AFSC	HQ US AIR FORCE
FLIGHT DYNAMICS LABORATORY	WRIGHT AERONAUTICAL LABS	AF SYSTEMS COMMAND
FRANK J. SEILER RESEARCH LABORATORY	OFFICE OF SCIENTIFIC RES	AF SYSTEMS COMMAND
GEOPHYSICS LABORATORY	SPACE TECHNOLOGY CENTER	AF SYSTEMS COMMAND
HUMAN RESOURCES LABORATORY	AEROSPACE MEDICAL DIVISION	AF SYSTEMS COMMAND
MATERIALS LABORATORY	WRIGHT AERONAUTICAL LABS	AF SYSTEMS COMMAND
ROCKET PROPULSION LABORATORY	SPACE TECHNOLOGY CENTER	AF SYSTEMS COMMAND
ROME AIR DEVELOPMENT CENTER	ELECTRONIC SYSTEMS DIVISION	AF SYSTEMS COMMAND
SCHOOL OF AEROSPACE MEDICINE	AEROSPACE MEDICAL DIVISION	AF SYSTEMS COMMAND
WEAPONS LABORATORY	SPACE TECHNOLOGY CENTER	AF SYSTEMS COMMAND

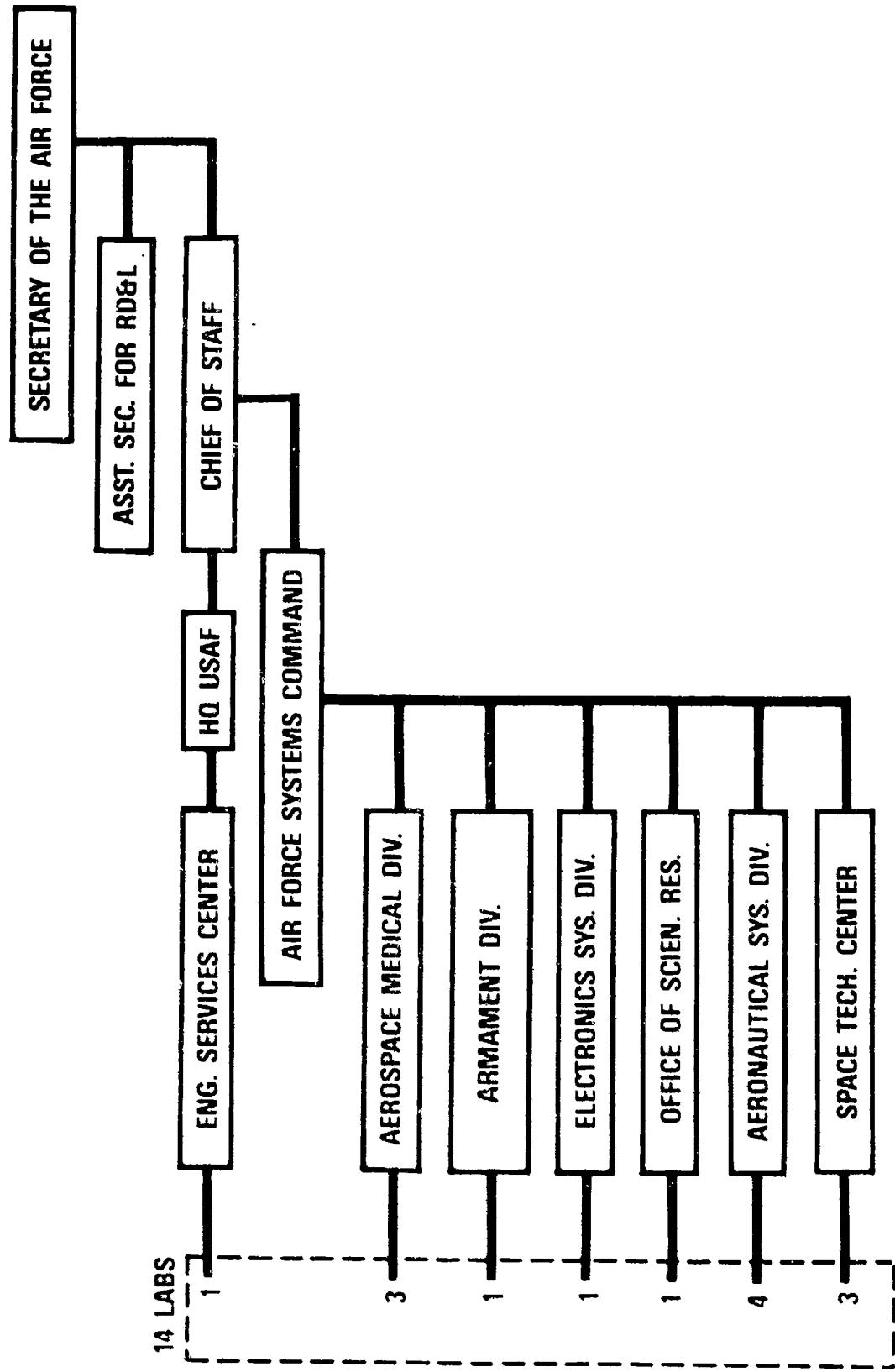
ARMY LABORATORIES COMMAND CHAIN



NAVY LABORATORIES COMMAND CHAIN



AIR FORCE LABORATORIES COMMAND CHAIN



XXXXXX

INSTALLATION: AEROMEDICAL RESEARCH LABORATORY

FT. RUCKER, AL

CDR. COL DUDLEY R. PRICE

DEP CDR. LTC J.D. LAMOTHE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	8.849	7.119
TOTAL PROCUREMENT	0.006	0.000
TOTAL O&M	0.000	0.020
TOTAL OTHER	2.717	3.050
TOTAL ANNUAL LAB	11.072	10.189
 TOTAL INHOUSE	10.241	9.594
TOTAL INHOUSE RDT&E	7.518	6.524
ANNUAL OPERATING COST	3.811	3.519

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		TOTAL PROF	NON- PROF
		PHDS			
MILITARY	72	18		44	28
CIVILIAN	70	9		28	42
TOTAL	142	22		72	70

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
58	89.572	18.000	10.669	118.241	7.506	13.519

...MISSION

CONDUCTS MEDICAL RSCH INTO MILITARY AVIATION, VEHICLES, & WEAPONS SYS ENVIRONMENT & THEIR EFF ON CREWMEMBERS' HEALTH, & PERF. PROVIDES TO DEVELOPERS & USERS OF ARMY SYS, DATA BASES ACQD THROUGH FIELD & LAB RSCH. CONDUCTS RSCH ON MED DEF AGAINST CHEMICAL AGENTS.

...CURRENT IMPORTANT PROGRAMS

PHYSIOLOGICAL & PSYCHOLOGICAL EFFECTS OF COMBAT CREWS IN NBC ENVIRONMENT
 INDIVIDUAL & CREW STRESS/WORKLOAD/PERFORMANCE
 AUDITORY EFFECTS OF BLAST OVERPRESSURE
 BIOMEDICAL HAZARDS OF COMBAT AIRCRAFT & VEHICLES
 VISUAL ACOUSTICAL BIOEFFECTS OF COMBAT MATERIAL & OPERATIONS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

SINGLE & MULTI-AXIS VIBRATION SYSTEMS; HELMET DROP TEST TOWER & IMPACT FACILITY; VARIABLE CENTER OF GRAVITY HELMET DEVICES; CARDIOPULMONARY LAB; BIOCHEMISTRY LAB; HELICOPTER INSTRUMENTED FLIGHT SIMULATOR; HELICOPTER INFLIGHT MONITORING SYSTEM; INSTRUMENTED FLIGHT RANGE/FIELD RESEARCH ACTIVITY; EYE MOVEMENT & TRACTING SYSTEM; MODIFIED AIRCRAFT FOR INFLIGHT MEDICAL RESEARCH; DATA ACQ & BIOTELEMETRY SYS - IN-HOUSE/MOBILE; ON-BOARD OXYGEN GENERATING SYS; VIVARIUM; MODELING FACILITY; HIGH-INTENSITY IMPULSE NOISE GENERATOR (SHOCK TUBE); MOBILE ACOUSTICS LAB; ANECHOIC & REVERBERATION CHAMBERS; BIO-OPTICAL TESTING LAB; OPTICAL FABRICATION LAB; ELECTRO-OPTICAL TESTING LAB; MOBILE VISUAL STUDIES LAB; VISUAL NEUROPHYSIOLOGY LAB; SCIENTIFIC & MEDICAL RSCH INFORMATION CENTER/LIBRARY; ANALOGUE & DIGITAL COMPUTER SYSTEM

INSTALLATION: AIR DEFENSE ARTILLERY BOARD

FORT BLISS, TX

PRES. COL JOE M. BOX

TECH ADV. MR. ALEJANDRA ESTORGA

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	5.488	7.157
TOTAL PROCUREMENT	0.924	0.924
TOTAL O&M	0.642	3.550
TOTAL OTHER	8.592	8.592
TOTAL ANNUAL LAB	10.596	15.228
 TOTAL INHOUSE	8.449	10.818
TOTAL INHOUSE RDT&E	8.948	5.227
ANNUAL OPERATING COST	0.727	0.727

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		TOTAL PROF	NON- PROF
		PHDS			
MILITARY	97	1		20	77
CIVILIAN	95	0		14	81
TOTAL	192	1		34	158

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
0	11.220	37.090	85.857	88.667	1.870	15.185	

...MISSION

PLAN, CONDUCT AND REPT ON OPERATIONAL AND OTHER USER TESTS. PARTICIPATE IN OTHER TESTING AS DIR. PROV ADVICE AND GUIDN ON TEST MATTERS TO COMBAT TRAINING AND MAT DEVELOPERS, OTHER SERVICES, AND PRIVATE INDUSTRY. CONDUCTS OTHER TESTS AND SELECTED SPECIFIC EVAL AS DIR BY CG, TRADOC.

...CURRENT IMPORTANT PROGRAMS

A2C2 FDTE
TRIPOD MOUNTED STINGER
HAWK EVALUATUIN
HAWK PIP PHASE III
HIGH MOBILITY INTEGRATED STINGER

...FUNCTIONS/EQUIPMENT/CAPABILITIES

EQUIPMENT: MULTIPLE TGT TRACKING SYS PROVIDES DATA FROM AIR AND GROUND TGTS, TWO LASER TRACKING SYS PROVIDE DATA FROM COOPERATIVE TGTS; INTR RADAR SYS THAT PROVIDES HIGH ACCURACY; ONE NIKE-HERC FIRE CON SYS USED WITH RADAR DATA RECORDER; A RANGE TIMING SYS TO PROVIDE A TIME BASE FOR ALL INSTR SYS; TWO DATA ACQ SYS ACCEPT 59 DIFFERENT SIGNALS, CCTV SYS FOR RANGE SAFETY; TECH PHOTO LAB FOR REQUIRED DATA; RICS PROVIDES NEAR REAL TIME DATA OUTPUTS. FACILITIES AT FT BLISS: BLDG 1656 HOUSES RICS; RANGE TIMING SYS; DATA REDUCTION SYS; ELECTRONICS CAL AND FABRICATION LAB; MACHINE AND CARPENTER SHOPS; MICROWAVE TERMINAL THAT PROVIDES DATA AND COMMO LINK TO RANGES; BLDG 1658 - PHOTOGRAPHIC LAB; MCGREGOR AND ORO GRANDE RANGES FOR FIRING FORWARD AREA WEAPONS AT AIR OR GROUND TGTS.

INSTALLATION: AIRBORNE & SPEC. OP. TEST BOARD

FORT BRAGG, NC

PRES. COL. WILLIAM T. PALMER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	8.828	3.219
TOTAL PROCUREMENT	0.411	0.118
TOTAL O&M	1.878	1.847
TOTAL OTHER	3.092	2.883
TOTAL ANNUAL LAB	8.204	7.067
 TOTAL INHOUSE	7.866	6.760
TOTAL INHOUSE RDT&E	2.990	2.912
ANNUAL OPERATING COST	2.591	2.741

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL	TOTAL	NON- PROF
		PHDS	PROF	
MILITARY	52	0	9	48
CIVILIAN	56	0	8	48
TOTAL	108	0	17	91

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
27	8.978	40.795	44.183	88.956	0.108	8.953

...MISSION

THE MISSION OF THIS BOARD IS TO PLAN, CONDUCT & REPORT ON OT I, II, & III FDTE AND OTHER USER-TYPE TESTS OF AVN EQUIP., PROCEDURES, & SYSTEMS; PARTICIPATE IN DT AS DIRECTED; PROVIDE ADVICE & GUIDANCE ON TEST & EVALUATION MATTERS; CONDUCT OTHER TESTS & EVALUATIONS AS DIRECTED.

...CURRENT IMPORTANT PROGRAMS

LOW ALTITUDE PARACHUTE EXTRACTION SYSTEM
STANDARD AIRDROP OF SELECTED ITEMS OF EQUIPMENT
EXTERNAL AIR TRANSPORTABILITY
INTERNAL AIR TRANSPORTABILITY
AIRBORNE/AIRMOBILE ENGINEER EQUIPMENT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES INCLUDE: MAIN OFC BLDG, ABN HANGAR, INSTRUMENTATION/DESIGN SECTION, AVN HANGAR, COMBINED SHOP & ADP FACILITY. MAJOR EQUIPMENT INCLUDES: 5 LIGHTWEIGHT OPTICAL TRACKING SYSTEMS, 25-TON CRANE, 2 20-TON MOBILE CRANES, 6-TON WRECKER, 2 40,000 LB ACFT LOADER, 3 T-84C ACFT, 1 UH-1H HELICOPTER, VARIOUS TYPES OF STANDARD PARACHUTES, 9 GASOLINE GENERATORS, DIGITAL THEODOLITES, ELECTRONIC DIAGNOSTIC EQUIPMENT, VOLTMETERS, AMMETERS, SPECTRUM ANALYZERS, SOUND & VIBRATION ANALYZERS, TIME MARK GENERATORS, OSCILLOSCOPES, MULTIMETERS, RANDOM NOISE GENERATORS, POWER SUPPLIES, Q METERS, ATTENUATORS, GRAPHIC LEVEL RECORDERS, 16MM CAMERAS, FILM ANALYZERS, PORTABLE VIDEO EQUIPMENT, VAN METER, ANALOG TAPE RECORDER, FREQUENCY COUNTERS, SOUND LEVEL CALIBRATORS, METER CALIBRATORS, MEGOMETER.

INSTALLATION: ARMOR AND ENGINEER BOARD,

FT KNOX, KY

PRES. COL GARRETT E. DUCAN SCI ADV. MR. WARREN W. WELLS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	10.788	11.958
TOTAL PROCUREMENT	2.550	1.865
TOTAL O&M	0.968	0.765
TOTAL OTHER	4.007	8.884
TOTAL ANNUAL LAB	18.268	18.422
 TOTAL INHOUSE	18.268	18.422
TOTAL INHOUSE RDT&E	10.788	11.958
ANNUAL OPERATING COST	0.809	0.895

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	178	0	69	109
CIVILIAN	126	2	82	94
TOTAL	304	2	101	208

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2	38.062	50.454	88.069	176.585	1.455	19.850

...MISSION

PLAN CONDUCT & REPORT: OT I, II, III, FDTE, FOE, CEP, PIP, & OTHER USER TESTS OF AR, ENGR, CML, QM & TRANS SCH EQ. PROVIDE GUIDANCE/ADVICE TO DEVELOPERS, PRODUCERS & OTHER SVCS/PRIVATE INDUSTRY. PLAN/COORDINATE/CONDUCT/RPT ON PERFORMANCE TESTS OF TEST BED VEHICLES & ADVANCED TECHNOLOGIES.

...CURRENT IMPORTANT PROGRAMS

XM40 PROTECTIVE MASK AND S10 BRITISH RESPIRATOR
BAITFIELD MANAGEMENT SYSTEM
FACILITY INTRUSION DETECTION DEVICE
M1 TRACK WIDTH MINE PLOW
MULTIPLE MINE DELIVERY SYSTEM (VOLCANO)

...FUNCTIONS/EQUIPMENT/CAPABILITIES

VIDEO AUTOMATIC TARGET TRACKING SYS; POSITION LOCATION SYS; WIRE GUIDED EVASIVE TARGET SYS; TANK VIDEO SYS; GUN CAMERA; RANGE TIMING EQ; TELEMETRY EQ; 16MM MOTION PICTURE CAMERA WITH DATADOORS; GUN ELEVATION LIMITING DEVICE; SLR CAMERA; AUTOMATIC FILM ANALYZER & DIGITIZER SYS; DATA ANALYSIS & RECORDING SUBSYS; INSTRUMENTATION VAN MOUNTED SIX CHANNEL VIDEO RECORDING SYS (VIDEO I); METEROLOGICAL INSTRUMENTATION; MICROCOMPUTER DEV LAB; ACCUBAR ACCOUNTICAL AUTOMATIC TARGET SCORING SYS; DIGITAL VIDEO PROCESSOR; BT-41 TANK COMBAT SIMULATOR; OPTICAL LIGHTBEAM SPLITTER. ADP CAPABILITIES INCLUDE IN-HOUSE REDUCTION & ANALYSIS OF INSTR GENERATED DATA, TELECOMMUNICATIONS INTERFACE TO CD & T&E NETWORK & CLASSIFIED PROCESSING. OTHER CAPABILITIES: 40-TON OVERHEAD CRANE; MACHINE SHOP AND MAINT EQ SETS; CBT VEH, TACTICAL WHEELED VEH & ENGR CONSTRUCTION EQ.

INSTALLATION: ARMY RESEARCH OFFICE

RSCH TRIANGLE PRK, NC

DIR. DR. ROBERT E. WEIGLE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	104.254	115.000
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.158	0.158
TOTAL ANNUAL LAB	104.407	115.158
 TOTAL INHOUSE	0.158	0.158
TOTAL INHOUSE RDT&E	0.000	0.000
ANNUAL OPERATING COST	2.220	2.500

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	2	0	0	2
CIVILIAN	183	42	52	81
TOTAL	185	42	52	83

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2	0.000	29.420	0.000	29.420	0.000	0.790

...MISSION

DEVELOP AMC RESEARCH PROGRAMS FOR MATH, AND PHYSICAL, ENGINEERING, ATMOSPHERIC, TERRESTRIAL, AND BIOLOGICAL SCIENCES. ASSESS, EVALUATE AND PRIORITIZE THE AMC 6.1 RESEARCH PROGRAM AND EVALUATE 6.2 EXPLORATORY DEVELOPMENT. ASSESS IMPACT OF INDEPENDENT RESEARCH AND DEVELOPMENT.

...CURRENT IMPORTANT PROGRAMS

RESEARCH IN ARTIFICIAL INTELLIGENCE.
CHEMICAL AND BIOLOGICAL DEFENSE.
ROTARY WING AIRCRAFT RESEARCH.
NOVEL NONDESTRUCTIVE EVALUATION.
RESEARCH IN IMAGE PROCESSING.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ADMINISTRATION OF RESEARCH PROGRAMS IN PHYSICAL SCIENCES MATHEMATICS, MATERIALS, ELECTRONICS, MECHANICS AND AERONAUTICS. ADMINISTRATION OF THE RESEARCH PORTION OF ARMY RESEARCH AND STANDARDIZATION OFFICE, LONDON, COORDINATES ARMY RESEARCH EFFORTS WITHIN THE ARMY AND WITH OTHER GOVERNMENT AGENCIES SUCH AS NAVY, NASA, DOD, NSF AND OTHERS.

INSTALLATION: ATMOSPHERIC SCIENCES LABORATORY

WHITE SANDS MR, NM

CDR/DIR. COL TODD D. STONG

DEP DIR. MR. JAMES E. MORRIS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	88.578	88.800
TOTAL PROCUREMENT	0.153	0.000
TOTAL O&M	0.898	0.200
TOTAL OTHER	0.485	0.201
TOTAL ANNUAL LAB	40.114	89.201
 TOTAL INHOUSE	28.472	28.101
TOTAL INHOUSE RDT&E	22.558	22.700
ANNUAL OPERATING COST	5.481	5.470

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	58	1	3	55
CIVILIAN	408	82	127	276
TOTAL	461	83	130	331

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
15	51.541	26.668	67.658	145.862	20.218	28.194

...MISSION

AMC LEAD LABORATORY FOR ATMOSPHERIC AND METEOROLOGICAL TECHNOLOGY.
 PROVIDE R&D PROGRAMS ON ATMOSPHERIC SENSORS AND BATTLEFIELD OBSCURATION EFFECTS. ASSIGNED MATERIEL DEVELOPMENT FOR METEOROLOGICAL SYSTEMS.
 PROVIDE METEOROLOGICAL SUPPORT TO AMC RANGES BOTH CONUS AND OCONUS.

...CURRENT IMPORTANT PROGRAMS

ATMOSPHERIC DATA AND TECHNOLOGY FOR ARMY RDTE.
 REMOTE SENSING OF CHEMICAL AND BIOLOGICAL TOXINS
 AN/TMQ-30 AUTOMATED METEOROLOGICAL STATION
 METEOROLOGICAL SUPPORT TO RDTE ACTIVITIES CONUS AND OCONUS.
 BATTLEFIELD ATMOSPHERIC EFFECTS ON ARMY SYSTEMS AND OPERATIONS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

METEOROLOGICAL RESEARCH FACILITY AND CAPABILITY.
 METEOROLOGICAL RDTE SUPPORT FACILITIES - CONUS AND OCONUS.
 HIGH ENERGY LASER (HEL) METEOROLOGICAL SYSTEM AT NATIONAL HEL FACILITY.
 INTEGRATED METEOROLOGICAL SYSTEM.
 AN/TMQ-30 AUTOMATED METEOROLOGICAL SYSTEM
 RPV/UAV METEOROLOGICAL SENSORS
 REMOTE WIND SENSING 8-KILOMETER LASER DOPPLER VELOCIMETER SYSTEM.
 MULTISPECTRAL IMAGE DATA ACQUISITION SYSTEM.
 TRANSPORTABLE ATMOSPHERIC CHARACTERIZATION SYSTEM.
 SIMULTANEOUS MULTISPECTRAL ABSOLUTE RADIOMETER/TRANSMISSOMETER.
 LOW VISIBILITY INFRARED TRANSMISSOMETER SYSTEM.
 UPPER ATMOSPHERIC RESEARCH AND SOUNDING FACILITY AND CAPABILITY.

INSTALLATION: AVIATION BOARD

FORT RUCKER, AL

PRES. COL STANLEY E. GRET

TECH ADV. MR. GEORGE E. SLAGLEY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	4.200	4.240
TOTAL PROCUREMENT	0.098	0.000
TOTAL O&M	0.116	8.040
TOTAL OTHER	2.883	2.681
TOTAL ANNUAL LAB	6.792	9.911
 TOTAL INHOUSE	 6.792	 9.911
TOTAL INHOUSE RDT&E	4.200	4.240
ANNUAL OPERATING COST	2.475	2.600

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	44	0	21	23
CIVILIAN	46	8	23	23
TOTAL	90	8	44	46

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	0.000	18.826	20.470	89.296	0.000	1.900

...MISSION

TO PLAN, CONDUCT AND REPORT ON OPERATIONAL TEST I, II, AND IIA AND OTHER NONMAJ SYSTEMS AS DIRECTED BY HQ, TRADOC. AVN BD DESIGNS AND CONDUCTS TESTING AND EVALUATION OF AVIATION SYSTEMS, SUBSYSTEMS AND ANCILLARY EQUIPMENT.

...CURRENT IMPORTANT PROGRAMS

AN/APR-89A(KE-1) RADAR WARNING RECEIVER
FO214C USAH/ASE FDIE
OTN1019A NOE COMM II
OTN1085 AH-64 MASK
OTN1084 SHELTER MAINTENANCE TRANSPORTABLE

...FUNCTIONS/EQUIPMENT/CAPABILITIES
NO MAJOR EQUIPMENT OR FACILITY.

INSTALLATION: AVIATION DEVELOPMENT TEST ACTIVITY

FORT RUCKER, AL

CDR. COL LAWRENCE KARJALA

TECH DIR. MR. JIM MCCRORY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	10.859	10.114
TOTAL PROCUREMENT	8.782	2.526
TOTAL O&M	4.282	5.888
TOTAL OTHER	6.881	6.080
TOTAL ANNUAL LAB	28.754	24.508
 TOTAL INHOUSE	 28.754	 24.508
TOTAL INHOUSE RDT&E	10.859	10.114
ANNUAL OPERATING COST	8.007	7.809

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	194	0	32	162
CIVILIAN	98	0	30	68
TOTAL	287	0	62	225

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1196	0.000	53.829	127.687	181.516	2.057	86.665

...MISSION

PLAN, CONDUCT, AND REPORT ON TESTS OF AVIATION SYSTEMS AND AVIATION RELATED EQUIPMENT FOR ARMY, NON-ARMY, GOVERNMENT AGENCIES AND PRIVATE INDUSTRY.

...CURRENT IMPORTANT PROGRAMS

AH64A LOGISTICS EVAL
AIR TO AIR STINGER
OH-58D LOG EVAL (AHIP)
PROGRESSIVE PREV MAINT (PPM)
CH-47D LOG EVAL

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THIRTY-TWO FIXED AND ROTARY WING AIRCRAFT ARE ASSIGNED (10 UH-1, 1 T-42, 6 AH-1S, 1 U-21, 2 CH-47, 8 OH-58, 1 OV-1, 2 UH-60, 1 AH-64) WHICH MAY BE USED AS TEST BEDS FOR ALL COMPONENTS, EQUIPMENT OR SUPPLIES APPLICABLE TO THAT A/C SERIES. A MODULAR ENGINE TEST SYSTEM (NETS) PROVIDES ACCURATE MEASUREMENTS OF TURBINE ENGINE PERFORMANCE FOR ENGINES UP TO 5000 HP AND WT UP TO 2000 LB. ON SITE DATA PROCESSING & DISPLAY CAPABILITY EXISTS WITH PDP-11 & IBM 4861 COMPUTER SYS. ADMIN & TECHNICAL PHOTOGRAPHIC CAPABILITY IS AVAIL TO INCLUDE VIDEO AND 16MM INSTRUMENTATION CAMERAS. THE INSTRUMENTATION LAB CAN COLLECT ANALOG AND DIGITAL MEASUREMENTS USING 14-TRACK INSTRUMENTATION RECORDERS AND DIGITAL CASSETTE RECORDERS. HAS B&W COLOR VIDEO RECORDING CAP, STRIP-CHART RECORDERS, OSCILLOGRAPH, AIRINC 514 CRASH REC AND OVER-WATER TESTING CAP.

INSTALLATION: AVIATION ENGINEERING FLT ACTIVITY

EDWARDS AFB, CA

CDR. COL ALAN R. TODD

TECH DIR. JAMES S. HAYDEN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	7.591	8.885
TOTAL PROCUREMENT	0.868	0.699
TOTAL O&M	0.000	0.000
TOTAL OTHER	2.097	2.283
TOTAL ANNUAL LAB	10.051	11.817
 TOTAL INHOUSE	9.505	10.767
TOTAL INHOUSE RDT&E	7.045	7.785
ANNUAL OPERATING COST	1.425	2.896

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		TOTAL PROF	NON- PROF
		PHDS	PROF		
MILITARY	64	0	45	45	19
CIVILIAN	100	0	80	80	70
TOTAL	164	0	75	75	89

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
19	9.200	1.600	124.800	135.600	4.042	15.482

...MISSION

PRODUCE ENGR FLT TEST DATA ON ACFT PERF, HANDLING QUALITIES, VIBRATION SYS/SUBSYSTEM INTERFACE FOR USE IN ACFT DEVELOPMENT AND QUALIFICATION. SUSTAIN THE CAPABILITY TO COMPLETELY INSTRUMENT TEST ACFT WITH ONBOARD RECORDING/TELEMETRY REAL TIME DATA REDUCTION. CONDUCT PRE-TPS ORIENT.

...CURRENT IMPORTANT PROGRAMS

PRELIMINARY AIRWORTHINESS EVALUATION BK-117

AH-1S(MC)UH-1H RUS SPRING EVALUATION

AH-64 ICING EVALUATION

PRELIMINARY AIRWORTHINESS EVALUATION UH-1H/T-55L-708 ENGINE
AIRWORTHINESS AND BLIGHT CHARACTERISTICS BELL 214ST

...FUNCTIONS/EQUIPMENT/CAPABILITIES

JT-288 2T288 20V-1C JU21A JAH-1S AH-1S 2JCR-47C JOR-58C JUR-60A
JOR-1H

ACFT MAINTENANCE CAPABILITY

ACFT MODIFICATION CAPABILITY

ACFT INSTRUMENTATION CAPABILITY

AIRBORNE DATA ACQUISITION-SYSTEMS

VAX 11/780 COMPUTER SYSTEM

REMOTE GROUND STATIONS WITH COMPUTER AND TELEMETRY CAPABILITY

MILIKEN, SMINOLTA, 2 BRONICA, PRINT DRYER, 2 ENLARGERS, 20 PCS VIDEO EQUIPMENT, TEXT EDITORS, 2 MAG TYPEWRITERS, AUTO COMPOSING SYSTEM

INSTALLATION: AVIATION RESEARCH + TECH ACTIVITY

MOFFETT FIELD, CA

DIR. DR. RICHARD M. CARLSON

DEP DIR. COL WALTER URBACH, JR.

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	148.857	104.608
TOTAL PROCUREMENT	0.888	0.450
TOTAL O&M	2.456	1.080
TOTAL OTHER	1.449	1.455
TOTAL ANNUAL LAB	153.600	107.588
 TOTAL INHOUSE	42.100	86.491
TOTAL INHOUSE RDT&E	38.188	88.916
ANNUAL OPERATING COST	7.400	7.659

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	24	1	19	5
CIVILIAN	865	26	258	107
TOTAL	889	27	277	112

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
127	88.848	58.678	16.870	163.891	2.272	19.489

...MISSION

MANAGE AND EXECUTE RESEARCH AND DEVELOPMENT OF ARMY AIRMOBILE SYSTEMS. PROVIDE TECHNICAL SUPPORT TO PROJECT/PRODUCT MANAGEMT AND SYSTEM DEVELOPERS AS REQUIRED. PROVIDE INDEPENDENT TECHNICAL RISK ASSESSMENT TO COMMANDER USA AVSCOM AND HIGHER AUTHORITY.

...CURRENT IMPORTANT PROGRAMS

RSCH IN FUNDAMENTAL ROTOR/ROTORCRAFT AERODYNAMICS, DYNAMICS, AND NOISE. R&D OF ENGINES, SMALL GAS TURBINES, TRANSMISSIONS, AND BEARINGS. R&D TO IMPROVE RELIABILITY & MAINTAINABILITY OF AIRMOBILE SYSTEMS. RSCH COMPOSITES & EVALUATE APPLICATIONS TO IMPROVE STRUCTURES FOR A/C. EVOLVE TECHNOLOGY & CRITERIA TO IMPROVE FLIGHT SAFETY & SURVIVABILITY.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THREE DIRECTORATES - AT MOFFETT FIELD CA, CLEVELAND OH, HAMPTON VA; COLLOCATED WITH NASA; PARTICIPATING IN AERONAUTICAL RESEARCH AND DISCIPLINES; JOINTLY USING WIND TUNNELS, SIMULATORS AND LABORATORY TEST FACILITIES, INCLUDING SHOPS, FLIGHT LINE AND HANGER, ENGINE AND TRANSMISSION TEST FACILITIES AND COMPUTATIONAL EQUIPMENT. FOURTH DIRECTORATE AT FORT EUSTIS VA, PERFORMING ADVANCED APPLICATIONS WORK INCLUDING AIRCRAFT WEAPONIZATION AND MISSION SUPPORT EQUIPMENT. MAJOR EQUIPMENT AND FACILITIES ARE FILAMENT WINDING MACHINES, TENSILE TESTERS, VIBRATION TESTER, SMALL BALLISTIC RANGE, CALIBRATION LAB, ENVIRONMENT CHAMBER, ATOMIC ABSORPTION SPECTROMETER, TELEMETRY GROUND STATION, NON-DESTRUCT TESTING FACILITY, AND FLIGHT SAFETY LAB.

INSTALLATION: AVIONICS R&D ACTIVITY

FORT MONMOUTH, NJ

CDR. COL DAVID GRIESHOP

DEP DIR. MR DAVID GAGGIN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	28.984	20.198
TOTAL PROCUREMENT	5.908	8.477
TOTAL O&M	4.828	4.108
TOTAL OTHER	1.383	0.902
TOTAL ANNUAL LAB	85.578	28.680
 TOTAL INHOUSE	12.650	11.981
TOTAL INHOUSE RDT&E	6.981	7.162
ANNUAL OPERATING COST	4.757	5.448

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	17	0	13	4
CIVILIAN	259	4	141	118
TOTAL	276	4	154	122

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
2	52.450	13.665	19.100	85.215	0.000	11.344	

...MISSION

RESPONSIBLE FOR THAT PORTION OF AVSCOM'S MISSION WHICH PERTAINS TO AVIONICS FROM RESEARCH THRU FIRST-TIME PRODUCTION. THIS ENCOMPASSES: SYSTEMS ARCHITECTURE; AVIONICS HARDWARE (I.E., COMM NAV, IMAGE&SIGNAL PROCESSING AIRBORNE CMD & CONT.); & SYS ENGINEERING/INTEGRATION

...CURRENT IMPORTANT PROGRAMS

DIGITAL AVIONICS INTEGRATION

INTEGRATED COMMUNICATIONS, NAVIGATION, IDENTIFICATION, AVIONICS

AUTOMATED BATTLE CAPTAIN DEMONSTRATION

NIGHT NAVIGATION AND PILOTAGE SYSTEM

HIGH RELIABILITY INERTIAL REFERENCE UNIT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR EQUIPMENT INCLUDES DIGITAL HOT BENCH, AUTOMATED DATA COLLECTION AND REDUCTION EQUIPMENT, AND AUDIO/DIGITAL ANALYZERS.

FACILITIES INCLUDE ACOUSTIC/AUDIO ANALYSIS FACILITY, TACTICAL AVIONICS SYSTEM SIMULATOR (TASS), SYSTEM TEST BED FOR AVIONICS RESEARCH (STAR), AUDIO ACOUSTIC FACILITY, ADJACENT HELIPORT, POST DEPLOYMENT SOFTWARE SUPPORT CENTER.

INSTALLATION: BALLISTIC RESEARCH LABORATORY

ABERDEEN PROV.GR, MD

CDR.COL. JAMES V. WASSON

DIR. DR. JOHN T. FRASIER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	185.819	119.199
TOTAL PROCUREMENT	11.425	18.289
TOTAL O&M	1.585	2.299
TOTAL OTHER	18.811	14.515
TOTAL ANNUAL LAB	161.640	149.802
 TOTAL INHOUSE	84.441	68.728
TOTAL INHOUSE RDT&E	68.891	50.745
ANNUAL OPERATING COST	12.000	18.469

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	14	1	10	4
CIVILIAN	748	111	478	270
TOTAL	757	112	488	274

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
1920	875.522	116.705	58.044	545.271	9.085	55.000	

...MISSION

SYSTEM FEASIBILITY. RESEARCH FOCUSES ON ADVANCED PROPELLANT TECHNOLOGY (GUNS), ANTI-ARMOR WARHEADS (GUNS/MISSES), ANTI-ARMOR KINETIC ENERGY PENETRATORS, VULNERABILITY-LETHALITY ASSESSMENT U.S. AND THREAT MATERIEL AND SYSTEMS AND CONCEPT ENGINEERING AND ANALYSIS. FACILITIES

...CURRENT IMPORTANT PROGRAMS

ARMY LEAD LABORATORY FOR BALLISTIC TECHNOLOGY, VULNERABILITY/VULNERABILITY REDUCTION, LIQUID PROPELLANT TECHNOLOGY (GUNS) AND CHARGED PARTICLE BEAM TECHNOLOGY. MAINTAIN WEAPON ORIENTED FUNDAMENTAL RESEARCH PROGRAM RESPONSIVE TO ARMY NEEDS. CONDUCTS EXPLORATORY DEVELOPMENT RESEARCH. SOLVE MILITARY PROBLEMS AND TO EVALUATE SOLUTION/

...FUNCTIONS/EQUIPMENT/CAPABILITIES

INCLUDE: LASER DIAGNOSTIC FACILITY FOR PROPELLANT FLAME ANALYSIS; PROPELLANT FRACTURE MECHANICS ANALYSIS FACILITY; INSTRUMENTED INDOOR AERODYNAMIC FLIGHT RANGES FOR PROJECTILES UP TO 8"; THREE DEGREE-OF-FREEDOM FLIGHT SIMULATOR FOR SHELL UP TO 155MM; EXPLOSIVE MECHANICS TEST FACILITY; HIGH EXPLOSIVE CASTING AND PRESSING FACILITY; HIGH ALTITUDE SIMULATION BLAST CHAMBER; SHOCK TUBES TO SIMULATE BLAST AND THERMAL NUCLEAR EFFECTS; ADVANCED TERMINAL BALLISTIC TEST FACILITY FOR ARMOR AND ANTI-ARMOR RESEARCH; ANECHOIC CHAMBER FOR MM WAVE SENSOR AND SCALE MODEL SIGNATURE RESEARCH; ION BEAM ACCELERATOR; FIELD TEST FACILITY FOR WARHEADS, PENETRATORS, EXPLOSIVE AND ARMOR RESEARCH; HIGH SPEED AND SPARK PHOTOGRAPHY; X-RAY CINERADIOGRAPHY; COMPUTER-AIDED-DESIGN/ENGINEERING; COMPUTERS WITH 1600 REMOTE INTERACTIVE TERMINALS.

INSTALLATION: BELVOIR RESEARCH & DEV CENTER

FORT BELVOIR,VA

CDR. COL EDWARD M. LEE

TECH DIR. MR. T. W. LOVELACE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	189.491	168.000
TOTAL PROCUREMENT	51.218	89.200
TOTAL O&M	80.705	22.800
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	221.414	229.500
 TOTAL INHOUSE	62.651	65.157
TOTAL INHOUSE RDT&E	45.940	47.778
ANNUAL OPERATING COST	22.897	28.818

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	59	2	59	0
CIVILIAN	1040	24	418	622
TOTAL	1099	26	477	622

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1052	859.261	186.816	260.584	806.661	19.598	89.194

...MISSION

PROVIDE THE ARMY WITH NEW AND IMPROVED COMBAT SUPPORT AND COMBAT SERVICE SUPPORT THROUGH RESEARCH, DEVELOPMENT, ENGINEERING, INITIAL ACQUISITION AND SUBSEQUENT ACQUISITION SUPPORT IN COMBAT ENGINEERING AND LOGISTICS SUPPORT SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

COUNTERMINE/COUNTEROBSTACLE EQUIPMENT
 FUELS AND LUBRICANTS DEVELOPMENT
 TACTICAL DECEPTION DEVICES
 WATER SUPPLY EQUIPMENT
 PETROLEUM DISTRIBUTION SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ACCOMPLISH RESEARCH DEVELOPMENT AND ACQUISITION FOR THE FOLLOWING FIELDS OF ENDEAVOR: BRIDGING, COUNTERMINE, COMBAT ENG, ELECTRICAL PWR, FUELS AND LUBES HEATER & AIR CONDRS, COUNTERMINESURVEILANCE & TACTICAL DECEPTION, PHYSICAL SECURITY, TUNNEL DETECTION, TOPO EQUIP, SENSOR TECHNOLOGY, WATER SUPPLY, FUELS HANDLING, SUPPLY DISTRIBUTION, MARINE CRAFT SUPPORT EQUIP. FACILITIES INCLUDE SENSOR TEST AREA, RADIO FREQUENCY ANECHOIC CHAMBER, FIRE SUPPRESSION CHAMBER, BRIDGE TEST HANGER, MOBILE STRESS ANALYSIS VAN, TRUCK STABILITY TILT TABLE, VEHICLE TEST TRACKS, SHOCK & VIBRATION DYNAMICS SIMULATOR, ENVIRONMENTAL SIMULATOR, RAIL IMPACT TEST FACILITY, MATERIALS RESEARCH LABORATORY, STILL & MOTION PICTURE SUPPORT, MODEL FABRICATION SHOP

INSTALLATION: CHEMICAL RESEARCH AND DEVELOPMENT CENTER ABERDEEN PG, MD

CDR. BG JAMES R. KLUGH DEP DIR. MR. B. RICHARDSON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	141.807	140.017
TOTAL PROCUREMENT	29.200	78.400
TOTAL Q&M	10.482	8.574
TOTAL OTHER	2.200	2.800
TOTAL ANNUAL LAB	183.689	224.291
TOTAL INHOUSE	74.464	76.874
TOTAL INHOUSE RDT&E	53.982	58.000
ANNUAL OPERATING COST	14.022	15.000

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	99	5	41	58
CIVILIAN	980	81	705	275
TOTAL	1079	86	746	833

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
8471	420.078	848.768	567.290	1836.126	25.080	52.817	

...MISSION

A RSCH, DEV AND ENGR LAB PROVIDING US FORCES WITH CAPABILITY TO OPERATE ON A CML/BIOL BATTLEFIELD AND DETER CML ATTACK. PROVIDE LIFE CYCLE ENGR FOR CML WEAPONS AND CML BIOL DEFENSE. ACT AS DOD LEAD LAB FOR CML DEF/DETERRENCE. CONDUCT SMOKE/OBSCURANT TECH BASE. COORDINATE INTL PROGRAMS.

...CURRENT IMPORTANT PROGRAMS

CB RECONNAISSANCE, DETECTION AND IDENTIFICATION
INDIVIDUAL/COLLECTIVE PROTECTION
CB DECONTAMINATION AND CONTAMINATION AVOIDANCE
SMOKE OBSCURANT SYSTEMS
CHEMICAL DETERRENT SYSTEMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

BASIC RESEARCH; SMOKE/OBSCURANT SYSTEMS; CHEMISTRY AND EFFECTS OF THREAT AGENTS; ANALYSIS AND INTEGRATION OF CML DEF SYSTEMS; RECONNAISSANCE, DETECTION, AND IDENTIFICATION; INDIVIDUAL/COLLECTIVE PROTECTION; DECONTAMINATION AND CONTAMINATION AVOIDANCE; CB DATA BASE & SYSTEMS SCIENCE; CHEMICAL DETERRENT SYSTEMS.

MAJOR EQUIPMENT IS CONTAINED IN A COMPLEX OF ENGR/LAB AREAS. INCLUDES CML PILOT PLANTS, AEROSOL CHAMBER, MUNITION FILLING FACILITY, PRODUCTION AND FACILITY DESIGN, CHAMBER FOR STUDIES ON SPEECH TRANSMISSION, SIMULANT AGENT CHALLENGE TEST CHAMBER, RUBBER/ELASTOMER MOLD FACILITY, SPECIALIZED CHEMICAL AGENT LAB, PYROTECHNIC MIXING, LOADING, HANDLING FACILITY, COMPUTERMAN, INDOOR BALLISTIC RANGE, SUBSONIC-SUPersonic, TRANSONIC WIND TUNNEL.

INSTALLATION: COLD REGIONS RESEARCH & ENGINEERING LAB

HANOVER, NH

CDR/DIR. COL M. F. ROTH

TECH DIR. DR. EUGENE MARVIN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985		1986
	(ACTUAL)	(ACT + EST)	
TOTAL RDT&E	18.170	14.015	
TOTAL PROCUREMENT	0.000	0.000	
TOTAL O&M	1.662	0.926	
TOTAL OTHER	10.289	18.578	
TOTAL ANNUAL LAB	25.121	28.516	
 TOTAL INHOUSE	17.728	20.842	
TOTAL INHOUSE RDT&E	8.084	8.549	
ANNUAL OPERATING COST	4.467	4.989	

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		TOTAL PROF	NON- PROF
		PHDS			
MILITARY	15	0		6	9
CIVILIAN	278	80		121	157
TOTAL	293	80		127	166

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP
81	108.797	80.027	145.148	283.972	15.995
					11.652

...MISSION

AS THE ARMY LAB FOR SCIENCE & TECHNOLOGY IN COLD REGIONS, THE COLD REGIONS R&E LABORATORY CONDUCTS & COORDINATES RESEARCH APPLICABLE TO THE ARMY'S NEED WHERE WINTER & COLD PRESENT A SEVERE PROBLEM.
MANAGE ARMY COLD REGIONS INFORMATION CENTER

...CURRENT IMPORTANT PROGRAMS

WINTER COMBAT OPERATIONS TECHNOLOGY
IMPACT OF WINTER ENVIRONMENT ON NEW WEAPON SYSTEMS AND OTHER MATERIEL
FACILITIES CONST. OPERATIONS, & REPAIR IN TEMP & ARTIC COLD CONDITIONS
IMPROVE WINTER NAVIGATION
DEVELOP ENVIRONMENTAL REMOTE SENSING APPLICATIONS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE MAIN LABORATORY AT USACRREL CONTAINS 24 COLD LABS WHICH CAN BE OPERATED TO -58 F, SPECIAL TESTING APPARATUS FOR RESEARCH IN FROZEN MATERIAL, AN ICE ENGINEERING FAC. FOR LARGE SCALE ICE MODELING EXPERIMENTS. A CHEMISTRY LAB, AN ELECTRON MICROSCOPE LAB, A SOILS PROC. LAB, A PAVEMENT TEST FAC. FOR TESTING UNDER FREEZING/THAWING CONDITIONS, A WASTEWATER TREATMENT REASERCH FAC., A COMPUTER INSTALLATION, A MASS SPECTROMETER, A GAS CHROMATOGRAPH, A SMALL LASER FAC. THE CRREL-ALASKA OFFICE AT FAIRBANK KS CONDUCTS RESEARCH AND PROVIDES LOGISTICS SUPPORT FOR OTHER RESEARCH. CRREL'S MIL. & CIV. PERSONNEL HAVE EXPERTISE OVER A WIDE RANGE OF SCIENTIFIC & ENGEERING DISCIPLINES RELATED TO COLD REGIONS RESEARCH. A NEW FACILITY THE FROST EFFECTS RES. FAC. WAS DEDICATED IN APRIL 1985. SIX TO EIGHT FREEZE/THAW CYCLES ARE NOW PERMITTED EACH YEAR IN THIS TEST FAC.

INSTALLATION: COLD REGIONS TEST CENTER

APO SEATTLE, WA

CDR. COL JESSE H. DENTON

TECH ADV. MR. WILLIAM J. HASLEM

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	7.056	7.887
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	5.587	5.755
TOTAL ANNUAL LAB	12.648	18.642
 TOTAL INHOUSE	12.648	18.642
TOTAL INHOUSE RDT&E	7.056	7.887
ANNUAL OPERATING COST	6.818	6.919

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	256	0	82	224
CIVILIAN	24	0	14	10
TOTAL	280	0	46	284

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
647155	0.000	84.184	167.282	201.466	10.886	10.102	

...MISSION

PLAN, CONDUCT, AND REPORT THE RESULTS OF COLD REGIONS, MOUNTAIN AND NORTHERN ENVIRONMENTAL PHASES OF DEVELOPMENT AND OTHER TESTS; REVIEW PLANS AND MONITOR DEVELOPMENT TESTING IAW INTERGRATED TESTING CYCLE POLICIES. PROVIDE ADVISE AND GUIDANCE TO GOVT AGENCIES AND PRIVATE IND.

...CURRENT IMPORTANT PROGRAMS

HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE AMBULANCE

ARCTIC FUEL DISPENSING EQUIPMENT (AFDE)

INTSGRATED INDIVILUAL FIGHTING SYSTEM PROGRAM (IIFSP)

MODULAR FIELD KITCHEN (MFK)

IR SMOKE SCREENING GRENADE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITY CAN ACCOMODATE A WIDE VARIETY AND LARGE NUM TESTS AT ANY ONE TIME. SEVERAL VEH TEST COURSES AND EXTENSIVE CROSS COUNTRY TERRAIN RANGES ARE AVAILABLE. 500,000 ACRE ISOLATED IMPACT AREA, 50KM MAX UNOBSERVED RANGE, LARGE RESTRICTED AIRSPACE WITH UNRESTRICTED FIRING TO 10,000 FT ORDINATE. COORD WITH FAA CAN EFFECT UNRESTRICTED ORDINATE. 1ST, 2ND, OR 3RD ORDER SURVEY POINTS. GOOD SECONDARY ROADS. PHONE/NON-TAC RADIO AT ALL RANGES AND TEST SITES. AUTODIN, FACSIMILE, TELETYPE, PHOTO LAB AND MAINT FOR MAJORITY OF EQUIP INCL ACFT. LIMITED ENGR SUPPORT. ARMY AVN AND USAF ACFT CAN BE ARRANGED. CALIBRATION AND METEROLOGICAL SPT AVAIL. INST FOR MOST ITEMS AVAIL, CAN OBTAIN OTHER INSTRUMENTS. MOVING TARGET SYSTEM, EOD, STATISTICAL, MAINT EVALUATION, AND HUMAN FACTORS CAPABILITIES AVAILABLE. COMPUTER SUPPORT AVAILABLE. TEMPERATURES TO -50 DEG FAHR COMMON.

INSTALLATION: COMBAT SYSTEMS TEST ACTIVITY

ABERDEEN PVC GRD, MD

CDR. COL RONALD V. BITE

TECH DIR. MR. DONALD RESCH

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	70.708	74.248
TOTAL PROCUREMENT	25.874	27.168
TOTAL O&M	5.851	5.619
TOTAL OTHER	10.697	11.281
TOTAL ANNUAL LAB	112.680	118.261
 TOTAL INHOUSE	101.160	106.217
TOTAL INHOUSE RDT&E	64.479	67.708
ANNUAL OPERATING COST	89.660	46.870

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	220	0	21	199
CIVILIAN	995	7	892	603
TOTAL	1215	7	418	802

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	
22865	720.999	4.851	248.742	974.092	22.176	44.865

...MISSION

PLAN, CONDUCT & RPT TESTS ON WPNS, WPN SYS, TRACKED & WHEELED VEH, FIRE CONTROL & TARGET ACQUISITION EQUIP, ITEMS OF AMMO & MUNITION COMPONENTS; TEST SPT EQUIP & AR PLATE FOR ALL AMC INSTLS & ACTIVITIES. PROVIDE SPT SVC TO APG ELEMENTS & SPT COMMANDS.

...CURRENT IMPORTANT PROGRAMS

PRODUCT IMPROVED VULCAN AIR DEFENSE SYSTEM (PIVADS)

VULNERABILITY STUDY OF BMP

BRADLEY FIGHTING VEHICLE SYSTEM

ABRAMS TANK (M1)

HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE (HMMWV)

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TEST AREA 68700 ACRES. 22500M RANGE TO LAND IMPACT, 26000M RANGE TO WATER IMPACT. 41 MILES OF AUTO COURSES INCL 27 SPECIAL ENGR TEST CRS/OBSTACLE. VARIOUS TYPES OF ENVIRONMENT/COND EQUIP. SPECIAL CHAMBERS F/SUBJECTING EQUIP TO DUST, SALT SPRAY OR SOLAR RADN. ISOLATED VIBRATION TEST FAC WHICH PERMITS SHAKING EXPLO EQUIP SIMULTANEOUSLY W/TEMP COND FAC F/CONTROLLED TESTS OF ELEC CONTROL & GUID EQUIP. FREQ SOURCE WHICH PERMITS TESTING ALL TYPES OF MAT IN PRESENCE OF HIGH INTENSITY ELEC MAGNETIC RADN. SPECIAL FAC F/TEST OF AR PLATE. SPECIAL VEL & TGT EQUIP IS AVAIL F/OBSERVATION DURING RAPID FIRE OF RKT TRACK F/CONTROLLED TERMINAL BALLISTIC TESTS. FAC AVAIL F/TESTS OF SPECIAL ELEC & FIRE CONTROL EQUIP & RELATED SYS & COMPONENTS. PULSE RADN FAC AVAIL FOR USE IN RADN TEST OF NUCLEAR EFFECTS. SIMULATION REACTOR TECH & RADN PHYSICS.

INSTALLATION: COMMUNICATIONS - ELECTRONICS BOARD

FORT GORDON, GA

PRES. COL HUMPHREY L. PETERSON, JR. ENGR ADV. MR. RONNIE E. BRACKETT

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	2.181	2.462
TOTAL PROCUREMENT	0.088	0.165
TOTAL G&M	0.465	0.968
TOTAL OTHER	2.665	2.173
TOTAL ANNUAL LAB	5.894	5.768
 TOTAL INHOUSE	5.894	5.768
TOTAL INHOUSE RDT&E	2.181	2.462
ANNUAL OPERATING COST	1.158	1.472

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL	NON- PROF
			PROF	
MILITARY	58	0	48	5
CIVILIAN	48	0	11	82
TOTAL	96	0	59	87

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
7	0.000	19.625	1.828	21.448	0.253	1.785

...MISSION

PLANS, CONDUCTS AND REPORTS ON OPERATIONAL TESTS OF I, II, AND, III OF C-E SYSTEMS AND FORCE DEVELOPMENT TESTING AND EXPERIMENTATION AS PUBLISHED IN THE DA FIVE YEAR TEST PROGRAM, CONDUCTS CONCEPT EVALUATION PLANS AND OTHER USER-RELATED/CUSTOMER TEST DIRECTED BY TRADOC

...CURRENT IMPORTANT PROGRAMS

TACTICAL ARMY CSS COMPUTER SYSTEM, TACCS, 85-OT-1214

AN/TSC-98A TACSATCOM, 86-OTN-1258

SPECIAL FORCES BURST COMM SYS AN/TSC-99, 86-OTN-845A

BATTLEFIELD ELECTRONICS CEOI SYSTEM, 86-OTN-1341

ARMY DARPA DISTRIBUTED COMMUNICATIONS PROCESSING EXPERIMENT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MANUAL AND AUTOMATED STIMULUS AND MEASUREMENT EQUIPMENT THAT PROVIDES DATA COLLECTION AND ANALYSIS CAPABILITY OF COMMUNICATIONS-ELECTRONICS CIRCUITS, EQUIPMENT, AND SYSTEMS.

INSTALLATION: COMMUNICATIONS-ELECTRONICS R&D CENTER

FT MONMOUTH N.J.

CDR. MG ROBERT D. MORGAN

TECH DIR. MR. EUGENE FAMOLARI

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	75.685	88.517
TOTAL PROCUREMENT	18.595	11.557
TOTAL O&M	8.781	4.540
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	92.961	104.614
 TOTAL INHOUSE	27.854	40.581
TOTAL INHOUSE RDT&E	22.684	35.991
ANNUAL OPERATING COST	8.900	8.200

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	18	0	8	5
CIVILIAN	664	9	543	121
TOTAL	677	9	551	126

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	39.506	98.976	6.485	144.966	0.000	23.700

...MISSION

PERFORM RESEARCH AND DEVELOPMENT OF THE COMMUNICATIONS AND AUTOMATION SCIENCES. PROVIDE COMPREHENSIVE TECHNOLOGY SUPPORT FOR COMMAND, CONTROL AND COMMUNICATIONS (C3) SYSTEMS AND CAPABILITIES. PROVIDE ENGINEERING EXPERTISE TO THE PM'S FOR DEVELOPMENT OF C3 SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

ARMY/DARPA DISTRIBUTED COMMUNICATIONS/PROCESSING EXPERIMENT (ADDCOMPE)
 MOBILE SUBSCRIBER EQUIPMENT (MSE)
 TACTICAL FIBER OPTIC CABLE ASSEMBLIES (TFOCA)
 HF DATA MODEMS
 SPECIAL OPERATIONS FORCES SUPPORT/PRODUCTS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MICROPROCESSOR DESIGN CENTER
 COMMUNICATIONS SYSTEM DESIGN CENTER
 SOFTWARE DEVELOPMENT SUPPORT SYSTEM
 TACTICAL DATA BASE MANAGEMENT SYSTEM TDBMS-TB
 EXPERIMENTAL DISTRIBUTED PROCESSING FACILITY
 PRODUCT LINE DEVELOPMENT (PLD)/NON-DEVELOPMENTAL ITEMS(NDI)
 ACOUSTIC RESEARCH LABORATORY
 HF CHANNEL SIMULATOR
 TELEPROCESSING DESIGN CENTER
 ARTIFICIAL INTELLIGENCE LABORATORY

INSTALLATION: CONSTRUCTION ENGINEERING RESEARCH LAB

CHAMPAIGN, IL

CDR. COL. PAUL J THEUER

TECH DIR. L. R. SHAFFER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	86.276	86.100
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	4.800	5.500
TOTAL OTHER	0.850	0.400
TOTAL ANNUAL LAB	40.926	42.000
 TOTAL INHOUSE	19.950	20.800
TOTAL INHOUSE RDT&E	17.850	17.600
ANNUAL OPERATING COST	2.510	8.000

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		TOTAL PROF	NON- PROF
		PHDS	PROF		
MILITARY	4	0	4	4	0
CIVILIAN	259	84	184	75	
TOTAL	263	84	188	75	

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
81	45.876	41.549	30.835	117.760	10.000	10.000

...MISSION

PLAN & EXECUTE RESEARCH TO OBTAIN THE BEST COMBINATION OF ENGINEERING DESIGN, CONSTRUCTION, OPERATIONS & MAINTENANCE TO PROVIDE FACILITIES FOR THE MIL ESTABLISHMENT & OTHER AGENCIES AT LEAST COST & TO DISSEMINATE THE RESEARCH RESULTS.

...CURRENT IMPORTANT PROGRAMS

DEVELOP ENERGY CONSERVATION TECHNIQUES/PROCEDURES FOR MIL INSTALLATIONS
 DEVELOP COMPUTER AIDED SYSTEMS FOR PLANNING AND DESIGN
 DEVELOP IMPROVED SYSTEMS FOR RPMA OF MIL FACILITIES
 DEVELOP SYSTEMS FOR ENVIRONMENTAL QUALITY MGMT
 ADAPT ALTERNATE FUELS TECHNOLOGY FOR MIL FACILITIES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONTROLLED ENV CHAMBERS; ION PLATING UNIT; 1000000-PD CLOSED-LOOP NTRL TEST SYT; SCANNING ELECTRON MICROSCOPE; SEMI-AUTO WELDING EQMT; BI-AXIAL SHOCK TEST MACHINE; NDT FAC; VACUUM INDUCTION FURNACES; METALLOGRAPHIC SAMPLE PREP; METALLOGRAPH X-RAY DIFFRACTION AND VACUUM SPECTROSCOPY SYT; DYNAMIC TENSION ANALYSIS SYT; DIGITAL RECORDING ANAL EQMT; AND HVAC TEST FACILITY CAPABILITIES INCLUDING SYSTEMS BLDG METHODS AND TECHNIQUES; COMPUTER-BASED DESIGN & CONST MGMT TECHNIQUES; ENERGY SYSTS DESIGN; ENERGY CONSERVATION & ALTERNATE FUELS; HARDENED FACILITIES ANALYSIS; ENV QUALITY MGMT; POLLUTION CONTROL ABATEMENT; MIL HOUSING SYTS; TRAINING-AREA MAINTENANCE & MGMT; MOBILIZATION FACILITIES; QUALITY OF LIFE & ARCHITECTURAL RES; & ELECTROMAGNETIC PULSE INTERFACE RES.

INSTALLATION: DUGWAY PROVING GROUND

DUGWAY, UTAH

CDR. COL JAMES D. TIPTON

SCI. DIR. DR. LOTHAR L. SALOMON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	52.498	57.966
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	1.588	1.670
TOTAL OTHER	8.497	24.409
TOTAL ANNUAL LAB	62.583	84.045
 TOTAL INHOUSE	59.239	65.580
TOTAL INHOUSE RDT&E	49.154	55.152
ANNUAL OPERATING COST	15.120	15.340

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		TOTAL PROF	NON- PROF
		PHDS	8		
MILITARY	175		8	154	21
CIVILIAN	826		21	104	722
TOTAL	1001		24	258	748

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
808128	159.561	198.888	1591.684	1949.638	57.000	48.000

...MISSION

DPG PLANS, CONDUCTS, REPORTS ON APPROVED TESTS TO ACCESS THE MILITARY VALUE OF CML WEAPONS, SMOKE/OBSCUR & CML-BIO DEF SYS. TESTS SPT R&D & PROVIDE BASIS FOR DEVELOP OF NEW OPERATIONAL & LOG CONCEPTS FOR EMPLOY OF TESTED SYS. TESTS ARE RESPONSIVE TO USER REQUIRE 'NTS.

...CURRENT IMPORTANT PROGRAMS

CONDUCTS SERVICE DEV CML CML-BIO DEFENSE SMOKE/OBSCUR TEST PROGRAMS
 CONDUCTS R & D & LAB INVESTIGATIONS NECESSARY TO SUPPORT MISSION
 CONDUCTS JT OP CML & CML-BIO DEFENSE TESTS/STUDIES FOR CINCS, SERVICES
 CONDUCTS PROG TO SPT ARMY POLL ABATEMENT HAZARD EVAL & DEMIL OPNS
 CONDUCTS ECOLOGICAL & TOXICOLOGICAL SURVL DPG AREA

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CML CML-BIO & SMOKE/OBSCUR: ARTY RG FOR CONVL & CML METAL PARTS,
 BALLISTIC & DISSEM TESTS: W/FIELD SMPL. SMPL MASS ANAL, MET(AUTO DATA ACQ & MESOMET NETWK)SYS. TSPI(RADAR SLAVE PHOTO)SYS; PHYS & ENVIRON TEST FAC(MIL SPEC 810)CHAMBERS FOR TOTAL AGENT CONTAINMENT; OPNS SPTD BY MET RSCH ON BEHAVIOR OF CLOUDS; CW, LIFE SCI TECHN, ECOL SURVL OF DPG;
 CAPABL FOR PLANNING ANAL, EVAL OF TESTS, OPNS RSCH, LABS EQUIPD FOR WIDE RNG OF CML, MICROBIO, TOXICAL, IMMUNOL, ECOL, POLL CNTR STUDIES, CAP FOR PROD RIO SIMUL AG; TECHN & MASS ASSAY OF FLUORESCENT AIR TRACERS; EXT COMM & RG SAFETY SYS. OUTSTANDING ARE LARGE LAND AREA, RESTRICTED AIR SPACE, LONG & FLAT ARTY RANGES, PROJECTILE RECOVERY, SONIC & ELECTROMAG STERILITY, DIVERSE TECH & SCIENTIFIC SKILLS

INSTALLATION: ELECTRONIC PROVING GROUND

FORT HUACHUCA, AZ

CDR COL WILLIAM R. HARNAGEL

TECH DIR MR. GRADY H. BANISTER, JR.

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	48.752	51.189
TOTAL PROCUREMENT	8.586	8.765
TOTAL OEM	2.184	2.241
TOTAL OTHER	15.094	15.849
TOTAL ANNUAL LAB	69.566	73.044
 TOTAL INHOUSE	 46.847	 49.189
TOTAL INHOUSE RDT&E	29.251	80.718
ANNUAL OPERATING COST	12.892	13.537

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	603	0	54	549
CIVILIAN	211	0	82	129
TOTAL	814	0	136	678

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
85688	0.150	28.042	812.519	840.711	11.000	21.700	

...MISSION

PLAN, CONDUCT, EVALUATE AND REPORT ON DEVELOPMENT AND OTHER ENGINEERING. LAB-TYPE TESTS OF GROUND AND AIRBORNE EQUIPMENT AND SYSTEMS THAT UTILIZE ELECTRONIC/ELECTROMAGNETIC TECHNOLOGY. MAINTAIN MODERN TEST FACILITY, INSTRUMENTATION, AND METHODOLOGY CAPABILITY.

...CURRENT IMPORTANT PROGRAMS

TRAILBLAZER, AN/TSQ-114B

REMOTELY PILOTED VEHICLE (RPV)

FACILITY INTRUSION DETECTION SYSTEM (FIDS)

SINGLE CHANNEL GROUND AIR AIRBORNE RADIO SYSTEMS (SINCgars)

JOINT TACTICAL INFORMATION DISTRIBUTION SYSTEM (JTIDS)

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCT TESTS OF HDWR/SOFTWARE, DOCTRINAL CONCEPTS/SCENARIOS TEST. CAPABILITY INCL TEST OF COMM, IMAG, IMAGERY INTERPRETATION MET, RADIAC, RDR, LASER INTEL, EW, CMD/CTRL, PWR SOURCES, RPV, GND&STCY SENSORS SYS/EQUIP INCL EMC, EMI, EMV, ECM, ECCM, TEMPEST AND INTRA/INTEROPERABILITY AS AL AS REQ. TECHNIQUES INCL BENCH AND FLD TEST W/ACCESS TO EXTENSIVE REAL EST, MATH MDL AND SIM FACS INCL: EM, CLIMATIC/STRUCT ENVIRON, INSTRUMENTED SPACE POS RG (3 FPS-16/CAPRI), TEMPEST, C3I SYS TEST INCL A REALISTIC EM BATTLEFIELD, ANTENNA PATTERN, ELECTRO-OPT AND VARIOUS ENVIRON FACILITIES INCL NUC, PERFORM RELIABILITY, AVAILABILITY AND MAINTAINABILITY (INCLUDE MAINT MANUALS, REPAIR PARTS, SPECIAL TOOLS), SAFETY AND HFE TEST. CONDUCT/PARTICIPATE IN RELATED DOCTRINAL AND CONCEPT STUDIES, AND TEST FOR ARMY, OTHER SERVICES AND DOD AGENCIES.

INSTALLATION: ELECTRONIC WARFARE LABORATORY

FT. MONMOUTH, NJ

CDR. MG ROBERT D.MORGAN

DIR. MR. ROBERT F.GIORDANO

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	120.627	126.658
TOTAL PROCUREMENT	209.892	220.887
TOTAL O&M	19.764	20.752
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	850.288	867.797
 TOTAL INHOUSE	84.755	86.498
TOTAL INHOUSE RDT&E	18.005	18.905
ANNUAL OPERATING COST	6.260	6.890

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	28	0	14	14
CIVILIAN	849	7	89	260
TOTAL	877	7	103	274

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
106	112.278	85.107	8.189	155.574	6.775	10.846

...MISSION

PERFORM RESEARCH AND DEVELOPMENT OF NONCOMMUNICATIONS AND SELECTED COMMUNICATIONS EW COUNTERMEASURES AND INTELLIGENCE EQUIPMENT ALONG WITH SURVEILLANCE, WEAPON LOCATION, DETECTION AND IDENTIFICATION EQUIPMENT.

...CURRENT IMPORTANT PROGRAMS

COMINT SYSTEMS-GUARDRAIL V, IMPROVED GUARDRAIL V
 INTEGRATED SIGINT SYSTEMS-GUARDRAIL COMMON SENSOR
 ELINT SYSTEMS-(W)I.KLOOK II, ADVANCED QUICKLOOK, TEAMPACK
 GROUND EMP AND OPTICAL NUCLEAR DETONATION SYSTEM (GEONDS)
 METEOROLOGICAL DATA SYSTEM (MDS) AN/TMQ-31

...FUNCTIONS/EQUIPMENT/CAPABILITIES

VAX 11/780 FOR THREAT DEPLOYMENT SIMULATION AND AN AI COMPUTING FACILITY
 ANECHOIC CHAMBER FOR RADAR REFLECTION AND ANTENNA PATTERN MEASUREMENTS
 NUCLEAR RADIATION FACILITY WITH NR SOURCES, GENERATORS, AND X-RAY MACHINE
 USED FOR ENERGY DEPENDANCE TESTS

ANTENNA TEST RANGE FOR TESTING RADAR ANTENNAS AND RADAR CROSS-SECTION
 MEASUREMENTS FROM 100 TO 1000 FT. DISTANCE USING A MOBILE TOWER TELESCOPING
 FROM 80 TO 150 FT.

A 50 FT. DIAM. TARGET TURNTABLE FOR CONDUCTING RADAR AND OPTICAL TARGET
 SIGNATURE STUDIES. WAYSIDE LASER RANGE, 3.2KM, USED FOR RF AND EO
 EXPERIMENTS AT TACTICAL RANGES. A RADAR DATA ACQUISITION VAN FOR
 ACQUISITION OF HIGH QUALITY KU BAND RADAR SIGNATURE DATA. AN ELECTRO-
 OPTICS LAB. A LASER LAB TO SUPPORT THE EO LAB AND WAYSIDE LASER RANGE.

INSTALLATION: ELECTRONICS TECHNOLOGY AND DEVICES LAB

FT. MONMOUTH, N.J.

DIR. DR. C. G. THORNTON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	79.865	106.851
TOTAL PROCUREMENT	6.747	4.881
TOTAL O&M	1.200	1.270
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	87.812	112.002
 TOTAL INHOUSE	22.995	29.674
TOTAL INHOUSE RDT&E	17.480	25.829
ANNUAL OPERATING COST	1.896	2.284

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON-
				PROF
MILITARY	1	0	0	1
CIVILIAN	290	86	185	105
TOTAL	291	86	185	106

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	58.768	85.887	0.000	94.600	0.000	19.000

...MISSION

DEVEL AND TRANSITION CRITICAL ELECT. TECH DEVICES INTO PRESENT & FUTURE GENERATION ARMY SYSTEMS. CRITICAL TECH INCLUDE: MILLIMETERWAVES, MICROWAVES, MICROELECTRONICS, ANALOG SIG PROC, FREQ CNTRL, DISPLAYS, TACT PWR SOURCES AND MGMT OF THE TRI-SERVICE VHASIC PROGRAM.

...CURRENT IMPORTANT PROGRAMS

ULTRA-HIGH STABILITY QUARTZ CRYSTAL RESONATORS.
 INTEGRATED CIRCUIT TRANSMITTERS, RECEIVERS AND TRANSCEIVERS.
 THERMOELECTRIC GENERATOR MATERIALS AND HARDWARE DEVELOPMENT.
 FULLY FUNCTIONAL POCKET RADIACT DEVELOPMENT AND DEMONSTRATION.
 FLAT PANEL DISPLAY TECHNOLOGY AND EVALUATION.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FULLY OPERATIONAL BATTERY TEST FACILITY OPERATED IN CONJUNCTION WITH CECOM. THE NEW ARMY PULSE POWER FACILITY FOR R&D AND EVALUATION IS SCHEDULED FOR COMPLETION IN FY86. MOLECULAR BEAM EPITAXY SYSTEM IS NOW UPGRADED TO INCLUDE A VARIAN 360 PREPARATION CHAMBER. A NEW HIGH VOLTAGE TEST MONITOR SYSTEM IS IN PLACE. A NEW TEST SYSTEM FOR AUTOMATIC MEASUREMENT OF FREQUENCY VS TEMPERATURE ON SURFACE ACOUSTIC WAVE DEVICES IS NOW OPERATIONAL.

INSTALLATION: ENGINEER TOPOGRAPHIC LABORATORIES

FORT BELVOIR, VA

CDR/DIR. MR. ALAN A. LAUBSCHER TECH DIR. MR. WALTER E. BOGE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	82.702	59.101
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	2.693	8.102
TOTAL OTHER	0.454	0.581
TOTAL ANNUAL LAB	85.854	62.784
 TOTAL INHOUSE	12.188	15.260
TOTAL INHOUSE RDT&E	9.879	12.754
ANNUAL OPERATING COST	8.785	4.271

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	11	0	14	8
CIVILIAN	297	18	186	111
TOTAL	308	18	200	114

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
88	90.722	7.000	18.800	111.022	6.000	14.612	

...MISSION

RESEARCH AND DEVELOPMENT IN TOPOGRAPHIC SCIENCES (MAPPING, POINT POSITIONING, AND GEOGRAPHIC INFORMATION), OPERATIONAL SUPPORT (TERRAIN ANALYSIS), AND SCIENTIFIC/ADVISORY SERVICES (REMOTE SENSING, COMPUTER TECHNOLOGY, AND ENVIRONMENTAL EFFECTS DATA).

...CURRENT IMPORTANT PROGRAMS

SUPPORT TO THE ARMY SPACE PROGRAM
DIGITAL TOPOGRAPHIC SUPPORT SYSTEM
MODULAR AZIMUTH AND POSITIONING SYSTEM
SUPPORT TO THE DEFENSE MAPPING AGENCY
SUPPORT TO THE DAKFA STRATEGIC COMPUTING PROGRAM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES INCLUDE A CARTOGRAPHIC LABORATORY TO STUDY THE PROBLEMS ASSOCIATED WITH HANDLING DIGITAL CARTOGRAPHIC DATA, A DIGITAL-IMAGE PROCESSING LABORATORY TO STUDY THE MANIPULATION AND ENHANCEMENT OF TERRAIN IMAGERY FOR OBTAINING MAPPING AND GEOGRAPHIC DATA, COMPUTER ASSISTED PHOTO-INTERPRETATION STATION FOR EXPERIMENTAL EXTRACTION OF TERRAIN FEATURES, AND AN ARTIFICIAL INTELLIGENCE TEST BED FOR USE IN TERRAIN FEATURE EXTRACTION AND EXPLOITATION EXPERIMENTS. COMPUTATIONAL EQUIPMENT INCLUDES THE CDC CYBER 170/780, PDP 1160 AND PDP 1170 AND DEC VAX MODELS 750/780/785. OTHER SPECIALIZED EQUIPMENT INCLUDE COMTA'S, PDS DIGITAL AUTOMATED MICRODENSITOMETER AND PRECISION MENSURATION EQUIPMENT.

INSTALLATION: ENGINEER WATERWAYS EXPERIMENT STA.

VICKSBURG, MS

DIR. COL A F GRUM

TECH DIR. DR. R. W. WHALIN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	49.778	58.500
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	2.200	2.500
TOTAL OTHER	62.817	59.000
TOTAL ANNUAL LAB	114.290	120.000
 TOTAL INHOUSE	91.545	96.455
TOTAL INHOUSE RDT&E	40.688	46.525
ANNUAL OPERATING COST	8.426	9.605

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	17	2	17	0
CIVILIAN	1642	114	675	967
TOTAL	1659	116	692	967

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
8078	1748.080	858.645	176.809	2278.534	42.800	51.700	

...MISSION

MIL.&JV FUNDED RSCH, DEV&INVES IN HYD, ECOLOGY, COASTAL ENGR., PAVEMENTS, SOIL, EXPLO WPNS EFF, EXPLO EXCAVATION, VEH MOBILITY, COUNTERMOBILITY; ENV. ASPECTS OF MIL. OPERATIONS. OPERATE TECH LIBRARY, GOVT CEMENT POZZOLAN TEST PROG. SERVES TOTAL ARMY, AF, NAVY, DNA, DOE, EPA & OTHER FED. AGENCIES.

...CURRENT IMPORTANT PROGRAMS

HYD&MATH MODELING TO SOLVE RIVER, TIDAL, WINDWAVE, ECOLOGICAL&STRUC PROBS. RSCH ON VEH MOBILITY, REMOTE SENSING, ENV. IMPACT & EARTHQUAKE DES. CRIT. NUC&HE RSCH TO DEV CRIT FOR DES PROTECT STRUC, BARRIERS &EXCAVATIONS. RSCH&DEV NEW & IMPROVED ENG DES. CRITERIA FOR ROADS, STORAGE& AIRFIELDS. RSCH&DEV OF CEMENT MATLS AND RSCH OF MASS AND STRUCTURAL CONCRETE.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PERFORM GEN INVEST IN FLDs OF HYD, SOIL &ROCK MECH, CONCRETE, MIL. VEH. MOBILITY, WPNS EFF, ECOLOGY, COASTAL ENGR; MINE/COUNTERMINE, CAMOUFLAGE, PROTECTIVE STRUCT., MATLS & EQUIPTESTING, STRUCT & P'EMENT DESIGN, EARTH QUAKE ENGR., AQUATIC PLANT CONT. WES CONTAINS BLDGS, TEST SITES, SPECIAL & OTHER PLANT SUPPORT EQUIP, TEST SITES & FAC FOR SPECIAL TESTS ARE MAINT. AT OTHER AREAS ON LEASE BASIS. FAC INCLUDE HYD FLUMES, WAVE GENERATORS, STATE-OF-THE-ART SOILS, CONC, CHEM, CALIB, COMP. CONTROLLED ENV.& LIMNOL-OLOGY LABS, X-RAY DIFFRACTION & SPECTROSCOPY EQUIP, BLAST LOAD FAC., NUMERICAL & PHYSICAL MODELING CAPABILITIES IN HYD & STRUC ENGR. MOBILITY RSCH FAC., IM LB DYNAMIC LOADER, SINGLE & MULTIPLE WHEEL LOAD CARTS, SURFACE BLAST EFF. FAC., HIGH AND LOW FREQ VIBRATORS; ELECTROBEAM MICROSCOPE LARGE SCALE COMPUTER FAC., TECH LIBRARY; PRINTING PLANT.

INSTALLATION: FIELD ARTILLERY BOARD

FT SILL, OK

PRES. COL C. S. NOBLES

TECH DIR. MR. BILLY HUDSON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	4.887	8.866
TOTAL PROCUREMENT	1.066	0.005
TOTAL O&M	0.282	0.871
TOTAL OTHER	5.016	4.811
TOTAL ANNUAL LAB	10.701	9.058
 TOTAL INHOUSE	10.701	9.058
TOTAL INHOUSE RDT&E	4.887	8.866
ANNUAL OPERATING COST	0.825	0.825

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	112	0	81	81
CIVILIAN	52	0	5	47
TOTAL	164	0	86	128

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	18.790	38.080	16.989	68.809	0.000	8.541

...MISSION

PLAN CONDUCT AND REPORT ON OT I OT II AND OTHER USER-TYPE TESTS
PARTICIPATE IN DT I AND DT II AS DIRECTED
PROVIDE ADVICE TO PROONENT AGENCIES AND DEVELOPERS
CONDUCT OTHER TESTS AND EVALUATIONS AS DIRECTED BY TRADOC

...CURRENT IMPORTANT PROGRAMS

OPERATIONAL TEST II TACFIRE VERSION VII
FOE BCS-ITS
FDTE HIP I
FOE FIST DMD
FDTE LIGHTWEIGHT TACFIRE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TWO MET STATIONS
TEST ITEMS ADDITIONAL SUPPORT IS OBTAINED FROM USAFACFS WHEN NEEDED

INSTALLATION: FIRE CONTROL & SMALL CAL. WPNS SYS. LAB DOVER, NJ

CDR. COL BERNARD MANDERVILLE

TECH DIR. MR. S. JACOBSON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	61.058	91.800
TOTAL PROCUREMENT	88.889	57.000
TOTAL O&M	10.244	5.000
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	109.691	158.800
 TOTAL INHOUSE	62.588	90.030
TOTAL INHOUSE RDT&E	24.650	37.480
ANNUAL OPERATING COST	17.000	18.000

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	15	0	9	6
CIVILIAN	848	29	483	365
TOTAL	863	29	492	371

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
7	177.420	108.980	4.667	286.067	10.125	29.958

...MISSION

MAINTAIN TEST BED FACILITIES TO EVALUATE WEAPON SYSTEMS FOR THE INDIVIDUAL SOLDIER, AUTOMATIC CANNON, TANK MAIN AND SECONDARY ARMAMENTS. ACCOMPLISH EXPLORATORY RESEARCH, ADVANCED AND ENGINEERING DEVELOPMENT. LIFE CYCLE TECH RESPONSIBILITY FOR FIRE CONTROL AND ALL WEAPON SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

JOINT SERVICES SMALL ARMS PROGRAM
ARMAMENT TECHNOLOGY FOR CLOSE COMBAT WEAPONRY
INDIVIDUAL SOLDIER WEAPONS
106MM RECOILLESS RIFLE UPGRADE
RESEARCH IN CLOSE COMBAT WEAPONRY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AIR DEFENSE GUN PLATFORMS AND GUN SYSTEMS FOR ATTACK AND UTILITY HELICOPTERS. CENTER HAS CAPABILITY FOR DESIGN AND FABRICATION OF CANNON MOUNTS, FEED SYSTEMS, TURRETS AND MUNITIONS. THE JOINT SERVICES SMALL ARMS PROGRAM HAS RESPONSIBILITY FOR ALL SMALL ARMS CONVENTIONAL AND SPECIAL WEAPON SYSTEMS FOR ALL USERS.

INSTALLATION: HARRY DIAMOND LABORATORIES

ADELPHI, MD

ACT DIR. DR. LOUIS M. TOZZI

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	92.122	91.201
TOTAL PROCUREMENT	52.212	51.690
TOTAL O&M	7.498	7.428
TOTAL OTHER	13.627	18.491
TOTAL ANNUAL LAB	165.459	163.805
TOTAL INHOUSE	99.263	98.271
TOTAL INHOUSE RDT&E	74.846	74.098
ANNUAL OPERATING COST	16.253	15.483

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	8	1	5	2
CIVILIAN	1016	49	497	519
TOTAL	1019	50	502	521

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
2816	507.829	112.019	121.492	741.340	53.921	57.071	

...MISSION

MISSION: RESEARCH, EXPLORATORY AND ADVANCED DEVELOPMENT, AND TECHNICAL LEADERSHIP IN ELECTRONIC FUZING AND SMART MUNITION SENSORS, NUCLEAR SURVIVABILITY, RADAR, SIGNAL AND INFORMATION PROCESSING, HIGH POWER MICROWAVES, ANTI-RADIATION COUNTERMEASURES, AND TROOP SUPPORT.

...CURRENT IMPORTANT PROGRAMS

CURRENT SIGNIFICANT PROGRAMS: NUCLEAR SURVIVABILITY TECHNOLOGY
VERY INTELLIGENT SURVEILLANCE AND TARGET ACQUISITION DEMONSTRATION
HIGH POWER MICROWAVE HARDENING TECHNOLOGY
ELEVATED TARGET ACQUISITION SYSTEM RADAR
M818E1 FUZE FOR PATRIOT MISSILE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR EQUIPMENT AND FACILITIES:

NUCLEAR FACILITIES: GAMMA RAY SIMULATOR (AURORA), HIGH INTENSITY FLASH X-RAY (HIFX), COBALT 60, ELECTROMAGNETIC PULSE SIMULATORS.

ELECTRONIC DESIGN FACILITIES: THICK FILM HYBRID CIRCUIT FACILITY, MICROELECTRONIC DESIGN FACILITY.

MICROWAVE ANECHOIC CHAMBERS

FUZE TEST FACILITIES: ARTILLERY SIMULATORS, ENVIRONMENTAL TESTING, BLOSSOM POINT TEST AREA.

DIR. DR. JOHN D. WEISZ

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	17.878	20.849
TOTAL PROCUREMENT	0.091	0.050
TOTAL O&M	0.121	0.120
TOTAL OTHER	0.875	0.200
TOTAL ANNUAL LAB	18.465	20.719
 TOTAL INHOUSE	14.674	15.777
TOTAL INHOUSE RDT&E	14.090	15.407
ANNUAL OPERATING COST	4.916	5.520

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	85	1	16	19
CIVILIAN	176	16	126	50
TOTAL	211	17	142	69

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
72	111.524	7.056	21.400	139.980	10.826	8.507	

...MISSION

CONDUCTS FUNDAMENTAL AND APPLIED RESEARCH IN HUMAN FACTORS ENGINEERING
 PROVIDES DIRECT DESIGN SUPPORT TO ALL MATERIEL DEVELOPMENT PROGRAMS
 SPONSORED BY AMC. NINETEEN DETACHMENTS AND/OR FIELD REPRESENTATIVES
 HAVE BEEN ESTABLISHED AT AMC CMDS, AND TRADOC CTRS/SCHOOLS

...CURRENT IMPORTANT PROGRAMS

COMMAND POST VEHICLE CONCEPT
 SOLDIER/MACHINE INTERFACE TEST BED HOWITZER CONCEPT
 CONCEPT HOOD/MASK PROTECTIVE, CHEMICAL-BIOLOGICAL
 ROBOTICS RESEARCH AND DEVELOPMENT
 MANPOWER AND PERSONNEL INTEGRATION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

COMMAND POST EXERCISE FACILITY
 ACE COMPUTER FACILITY
 FIRE CONTROL RESEARCH FACILITY
 DATA ACQUISITION AND BIOTELEMETRY SYSTEM
 GAT 2M HELICOPTER SIMULATOR
 ACOUSTICAL AND ANECHOIC CHAMBER REVERBERANT ROOM
 BELFAST LOGISTICS TESTING FACILITIES
 EYE MOVEMENT MEASURING DEVICE
 SMALL ARMS TEST FIRING RANGE
 WOOD AND METAL WORKING TEST SUPPORT CAPABILITY
 HUMAN FACTORS DATA BANK
 COMMAND CONTROL SIMULATOR SYSTEM

INSTALLATION: INFANTRY BOARD

FORT BENNING, GA

CDR. COL JOHN N. MELOY

TECH DIR. MR. PAUL W. LAVENDAR

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	8.687	8.962
TOTAL PROCUREMENT	0.107	0.068
TOTAL O&M	0.258	0.284
TOTAL OTHER	8.144	8.582
TOTAL ANNUAL LAB	7.191	7.846
 TOTAL INHOUSE	 7.191	 7.846
TOTAL INHOUSE RDT&E	8.687	8.962
ANNUAL OPERATING COST	2.825	3.728

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	107	0	2	105
CIVILIAN	77	8	8	69
TOTAL	184	8	10	174

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	0.000	82.203	32.885	65.088	8.000	1.682

...MISSION

PLAN CONDUCT REPORT ON OPERATIONAL TESTS 1/2/3, FORCE DEVELOPMENT TESTS OTHER TESTS OF EQUIPMENT & ANCILLARY ITEMS TO BE USED BY INFANTRY UNITS FOR COMMAND, CONTROL, FIREPOWER, TARGET ACQUISITION, GROUND SURVEIL- LANCE, FIRE CONTROL GROUND MOBILITY & TRNG & CHEMICAL/BIOLOGICAL EQUIP

...CURRENT IMPORTANT PROGRAMS

ENHANCED M16A2 RIFLE OT II
BATTALION MORTAR SYSTEM (BMS) 120 MM
THERMAL WEAPONS SYSTEM (TWS)
XM 4 CARBINE OT II
NIGHT VISION GOGGLES, AN/PVS-7 (NVG)

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AUTOMATED, COMPUTERIZED AUTOMATIC & SMALL ARMS WEAPONS RANGE
CLOTHING & EQUIPMENT TEST FACILITY
MANNEQUIN EVASIVE TARGET
NOVA 812 COMPUTER CAPABILITIES

INSTALLATION: INSTITUTE OF DENTAL RESEARCH

WASHINGTON, D.C.

CDR. COL HAROLD E. PLANK SCI DIR. DR. GINO C. BATTISTONE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	6.425	4.481
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	1.903	2.778
TOTAL ANNUAL LAB	8.828	7.204
TOTAL INHOUSE	6.245	5.878
TOTAL INHOUSE RDT&E	4.475	2.605
ANNUAL OPERATING COST	1.083	1.242

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	60	9	88	22
CIVILIAN	20	2	4	16
TOTAL	80	11	42	38

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	9.852	5.696	1.200	16.748	2.610	8.626

...MISSION

USAIDR CONDUCTS R&D ON TREATMENT OF COMBAT FACIAL INJURIES, INFECTIONS, FIELD DENTAL EMERGENCIES, SYNTHETIC & ALLOGENIC MATERIALS FOR USE AS IMPLANTS TO REPLACE LOST HARD & SOFT TISSUE, FIELD DENTAL EQUIPMENT & MATERIALS, & TECHNIQUES FOR RAPID DIAGNOSIS OF CHEMICAL CASUALTIES.

...CURRENT IMPORTANT PROGRAMS

HAND-HELD ELECTRO-OPTIC DENTAL X-RAY

MICROENCAPSULATED ANTIBIOTICS

COMPUTER ASSISTED POSTMORTEM IDENTIFICATION SYSTEM

POLYMER/MEDICAMENT AND DECALCIFIED BONE SYSTEMS FOR HUMAN IMPLANTATION
ANTIBIOTIC CONTAINING WOUND DRESSINGS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

BLDG 40, WRAMC, WASHINGTON, D.C.

BLDG 91, WRAMC, WASHINGTON, D.C.

BLDG 2801-2-4-5-10-31-32, FORT MEADE, MD

BLDG 1808, PRESIDIO OF SAN FRANCISCO, CA

MICROSCOPES-SEM-TEM

FLUORESCENT MICROSCOPE WITH VIDEOPLAN SYSTEM

GAS CHROMATOGRAPH-MASS SPECTROMETER WITH DATA SYSTEM

FTIR INFRARED ANALYZER

NMR SPECTROMETER

IMAGE INTENSIFIER QUATIMET

MICROTOME SYSTEM HARD TISSUE

LIQUID AND GAS CHROMATOGRAPHS AND ATOMIC ABSORPTION SPECTROPHOTOMETERS

INSTALLATION: INSTITUTE OF SURGICAL RSCH

FT SAM HOUSTON, TX

CDR. COL BASIL A. PRUITT, JR. SCI DIR. DR. AUTHUR D. MASON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	8.860	8.475
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	5.509	6.767
TOTAL ANNUAL LAB	8.869	10.242
 TOTAL INHOUSE	 8.869	 10.242
TOTAL INHOUSE RDT&E	8.860	8.475
ANNUAL OPERATING COST	1.255	1.381

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	156	18	52	104
CIVILIAN	72	8	34	38
TOTAL	228	26	86	142

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	26.424	1.800	22.400	50.624	5.482	5.091

...MISSION

INVESTIGATE PROBLEMS OF MECHANICAL AND THERMAL INJURIES WITH THEIR COMPLETE CARE FOR PATIENTS WITH SUCH INJURIES
 TEACH AND TRAIN OTHER PERSONNEL IN THE MANAGEMENT OF SUCH PATIENTS
 CONDUCT INVESTIGATIVE STUDIES AT BOTH THE BASIC AND CLINICAL LEVELS

...CURRENT IMPORTANT PROGRAMS

BURN INFECTION, TREATMENT AND PREVENTION
 INEQUALITY OF VA/Q RATIOS FOLLOWING SMOKE INHALATION AND THE EFFECTS OF STUDIES OF LYMPHOID SUBPOPULATIONS IN A BURNED ANIMAL MODEL
 PRELIMINARY STUDIES OF ZINC HOMEOSTATIC CONTROL AND IMMUNOCOMPETENCE IN CARDIOVASCULAR AND ENDOCRINE SEQUELAE OF BURN RESUSCITATION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

OPERATES FORTY BEDS FOR SERIOUSLY BURNED AND INJURED PATIENTS. PROVIDES CLINICAL LABORATORY SUPPORT AND RESEARCH CAPABILITIES IN THE FIELDS OF PATHOLOGY (INCLUDING USE OF AN ELECTRON MICROSCOPE), MICROBIOLOGY, EXPERIMENTAL SURGERY AND BIOCHEMISTRY. MAINTAINS AN ANIMAL COLONY, ELECTRONIC SHOP, MACHINE SHOP AND SURGICAL LIBRARY.

INSTALLATION: INTELLIGENCE AND SECURITY BOARD

FORT HUACHUCA, AZ

PRES. LTC. GARY A. GRUENHAGEN

TECH. DIR. MR. PHILLIP E. WRALSTAD

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	8.447	8.487
TOTAL PROCUREMENT	1.879	1.688
TOTAL O&M	0.805	1.569
TOTAL OTHER	1.125	1.091
TOTAL ANNUAL LAB	6.256	7.785
TOTAL INHOUSE	1.501	2.003
TOTAL INHOUSE RDT&E	1.879	1.875
ANNUAL OPERATING COST	0.839	0.995

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	84	0	70	14
CIVILIAN	88	2	29	4
TOTAL	117	2	99	18

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
10	4.000	6.627	21.667	32.294	0.616	9.806

...MISSION

PLAN, CONDUCT AND REPORT ON OT I, II, III AND OTHER USER TYPE TESTS OF TACTICAL INTEL + SECURITY MATERIAL. PARTICIPATE IN DT I, II + III TESTS AS DIRECTED. CONDUCT VULNERABILITY + OTHER CUSTOMER TESTS AS DIRECTED.

...CURRENT IMPORTANT PROGRAMS

AN/ALQ-186 PULSE RADAR JAMMER 860ZN1075

REMBASS SIMULATOR 860ZN1160

BATTLEFIELD DECEPTION 86CEP315

SEMA/ASE PHASE III (FDIE) 87F000214B

ADVANCED COMMANDERS TACTICAL TERMINAL 87OT1260

...FUNCTIONS/EQUIPMENT/CAPABILITIES

EW MONITORING FAC: TRANSPORTABLE 80 FT VAN: RECEIVE 10KHZ TO 40GHZ: DF 20 MHZ TO 40GHZ: TAPE RECORDERS, SPECTRUM ANALYZERS AND OSCILLOSCOPES.
ANALYSIS EQP. VULNERABILITY MOBILE TRANSMITTER "A" VAN: TRANSPORTABLE 40 FT VAN: RECEIVE 900KHZ TO 1GHZ: JAM 10KHZ TO 1GHZ WITH 1000W TRANSMITTERS:
ANALYSIS EQP. VULNERABILITY MOBILE TRANSMITTER "B" VAN: TRANSPORTABLE 40 FT VAN: RECEIVE 1GHZ TO 40GHZ: JAM 1GHZ TO 40GHZ WITH 200W TRANSMITTERS:
ANALYSIS EQP. NON-COMM EMITTER SIMULATOR: 8.6 TO 17.0GHZ: 200W OUTPUT
SIMULATING 20 THREAT RADARS: COMPUTER CONTROL VIA DATA LINK: TRANSPORTABLE : REPROGRAMMABLE. COMM EMITTER SIMULATOR: 2 TO 500MHZ: 20W OUTPUT : SIMULATING 50 THREAT COMM TYPES: CONTROL THRU SYS MICROPROCESSOR, RECORDER OR DATA LINK: TRANSPORTABLE: REPROGRAMMABLE. OPERATIONAL TEST CONTROL CENTER: BLDG WILL HOUSE REALTIME RANGE CONTROL SYS FAC AND DATA PROCESSING.

INSTALLATION: KWAJALEIN MISSILE RANGE, MARSHALL ISLANDS APO SAN FRANCISCO

DIR. COL J. A. ALLRED

DEP DIR. MR. H. R. BRASWELL

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	170.181	182.970
TOTAL PROCUREMENT	0.000	0.000
TOTAL OEM	0.000	0.000
TOTAL OTHER	2.690	17.845
TOTAL ANNUAL LAB	172.821	200.815
 TOTAL INHOUSE	9.100	8.174
TOTAL INHOUSE RDT&E	6.410	5.429
ANNUAL OPERATING COST	0.759	0.600

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	44	0	15	29
CIVILIAN	105	1	60	45
TOTAL	149	1	75	74

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1861	0.000	209.608	2428.848	2638.456	287.550	245.980

...MISSION

PLAN, MANAGE, DIRECT, CONTROL & COORDINATE OVERALL ACTIVITIES OF THE KWAJALEIN MISSILE RANGE FOR TECH & LOG SUPPORT OF ON-SITE STRATEGIC DEFENSE PROGRAMS. TECH INSTRUMENTATION SUPPORT OF STRATEGIC OFFENSIVE WEAPON SYSTEMS DEV & OPNS TEST. SPACE DATA COLLECTION & SURVEILLANCE.

...CURRENT IMPORTANT PROGRAMS

USAF DELTA 180 PROGRAM DEV & RANGE OPERATIONS SUPPORT

USAF SAC MINUTEMAN III OPERATIONAL TESTING

USN STRATEGIC SYSTEMS PROGRAM OFFICE OPERATIONAL TESTING

USAF BMO PEACEKEEPER R&D TESTING

SPACE DETECTION & TRACKING SYS & SPACE OBJECT IDENTIFICATION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ALCOR TRADEX ALTAIR & MILLIMETER WAVE RADARS, MULTISTATIC MEASUREMENT SYS, KREMS TO CONUS HIGH SPEED DATA LINK, 2AN/MPS 86, AN/FPQ19, AN/TPX42 2 SPLASH DETECTION RADARS, 3 RADOTS, 6 SUPER RADOTS, 8 BALLISTIC CAMERA 6 SPECTRAL CAMERAS PHOTO LAB, S-BAND TELEMETRY RECEIVING SYS INCL 8 AUTO TRACK ANTENNAS, 1 RELAY SYS, RECIEVE & RECORD SYS, DATA SEPARATION AND DISPLAY SYS, METEOROLOGICAL SYS, LAUNCH ORDNANCE FAC, TIMING/COUNTDOWN SYS FREQUENCY CON,ROL & ANALYSIS SYS, INSTRUMENTATION CONTROL CENTER AIR TRAFFIC CONTROL SYS INCLUDING TACAN LOW FREQUENCY HOMING BEACON & AC COMMUNICATION, CLOSED CIRCUIT TV SYS, DATA REDUCTION FACILITY & INSTRUMENTATION SYS ACCURACY ANALYSIS CAPABILITY GROUND PORTION OF FLIGHT TERMINATION & CONTROL SYS, DIVING & RECOVERY CAPABILITIES & RANGE SAFETY SYSTEM.

INSTALLATION: LARGE CALIBER WEAPONS SYSTEMS LAB

DOVER, N.J.

CDR. COL A. T. CRUMPTON

TECH DIR. DR. T. DAVIDSON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDI&E	206.028	208.086
TOTAL PROCUREMENT	69.800	59.827
TOTAL O&M	7.900	7.995
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	288.228	275.408
 TOTAL INHOUSE	 187.129	 127.848
TOTAL INHOUSE RDT&E	60.179	60.781
ANNUAL OPERATING COST	28.043	29.445

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	27	0	20	7
CIVILIAN	1728	80	1089	639
TOTAL	1755	80	1109	646

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
17	407.992	285.400	85.000	728.892	17.782	29.420

...MISSION

MAINTAIN STRONG BASIC & EXPLORATORY TECH BASE, CONCEPT FORMULATION, RDTE, & SPT TO PRODUCTION FOR MUNITIONS & WPNS SYS LARGER THAN 40MM, E.G., TOWED & SP ARTY SYS, TK MAIN ARM, MORTARS, RECOILLESS RIFLES, MSL/RET WDHS, FUZES, MINES, DEMOS, NONNUCL SAFE-ARM-FUZING F/ARMY NUC MUNS.

...CURRENT IMPORTANT PROGRAMS

ENERGETIC MATERIALS, H1-ENERGY, H1-D EXPLS, ENHANCED ANTIARMOR WDHS
ELECTROMAGNETIC PROPULSION, LIWT LAUNCH COMPTS
LIWT ARTY, LIWT TOWED ARTY WPNS, MISSILE-CANNON AIR DEFENSE
INTEGRATED SMART ARTY SYNTHESIS-ISAS, LEAP AHEAD PGM, ROBOTICS
H1-G/H1-D SMART MUNITIONS, CQNV GEOM SMART PROJECTILES & TK H1- G MUNS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CAPABILITIES & FACILITIES IN LCWSL: ENERGETIC MATERIALS IGNITION, RHEOLOGY, & COMBUSTION AEROBALLISTICS MUNITION DEV & TEST, GAS DYNAMICS, A CLOSED BOMB DIFFERENTIAL THERMAL ANALYSIS, PROPELLANT SURVEILLANCE, EVALUATION, & TEST, HYPERVELOCITY PROPULSION, PYROTECHNIC EVALUATION & TEST, X-RAY, LASER, HOLOGRAPHIC, & ULTRASONIC NDT, SHAPE CHARGE TEST, HIGH SPEED DETONATION, EXPLOSIVE HAZARD ANALYSIS & PERFORMANCE TEST, GUN BARREL FATIGUE TEST, BREECH MECHANISM & BREECH BLOCK TEST, SPECIALIZED TEST & ANALYTICAL EQUIPMENT, SUBSONIC, TRAN-SONIC, & SUPERSONIC WINDTUNNELS, ELECTROMAGNETIC LAUNCHER CAPABLE OF DELIVERING 3 TO 5 GIGAWATTS, REAL POWER, MACHINE & MODEL SHOPS. THESE RESOURCES ARE CONTAINED IN A COMPLEX OF ENG & LAB BLDGS. LCWSL HAS 20 ADM, 72 LAB, & 2 STORAGE BLDGS.

INSTALLATION: LETTERMAN ARMY INSTITUTE OF RESEARCH

PRES. OF SAN FRA, CA

CDR. COL EDWIN S. BEATRICE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	16.422	17.957
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.817	0.120
TOTAL OTHER	4.578	6.062
TOTAL ANNUAL LAB	21.812	24.139
 TOTAL INHOUSE	16.269	17.004
TOTAL INHOUSE RDT&E	11.879	10.822
ANNUAL OPERATING COST	6.551	7.658

PERSONNEL	AUTHORIZED STRENGTH	(END OF FY 1985)			NON- PROF
		TOTAL PHDS	TOTAL PROF		
MILITARY	155	27	74	81	
CIVILIAN	99	16	48	51	
TOTAL	254	43	122	132	

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP	
	LAB	ADMIN	OTHER				
9	119.204	56.941	112.174	288.319	43.779	11.955	

...MISSION

TO CONDUCT MEDICAL RESEARCH IN BIOEFFECTS OF & EYE PROTECTION AGAINST LASERS; BLOOD PRESERVATION; BLOOD SUBSTITUTES; RESUSCITATION METHODS FOR USE IN FORWARD AREAS; DERMAL PROTECTION FROM CHEM AGENT & VECTOR BORN DISEASE; MAMMALIAN & IN VITRO TOXICOLOGY; FORWARD AREA CASUALTY CARE

...CURRENT IMPORTANT PROGRAMS

DETERMINATION OF SAFE THRESHOLDS OF COHERENT RADIATION
 RESUSCITATION SOLUTIONS FOR USE FORWARD OF DEFINITIVE MEDICAL CARE
 ACUTE & CHRONIC MAMMALIAN & IN VITRO TOXICOLOGY
 CUTANEOUS PROTECTION AGAINST HAZARDS IN A COMBAT ENVIRONMENT
 FORWARD CARE TRAUMATIC SHOCK & HIGH VELOCITY MISSILE INJURIES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

VARIOUS WAVE LENGTH LASERS, SIMULATED TERRAIN MODEL FOR EVALUATING PERFORMANCE FOLLOWING SIMULATED EXPOSURE, CONVENTIONAL BLOOD STORAGE SEPARATION & ANALYSIS LABS TO INCLUDE MASS SPECTROMETRY, GAS HIGH PERFORMANCE LIQUID CHROMATOGRAPHY, SURGICAL SUITES WITH ON-LINE MULTI-CHANNEL PHYSIOLOGIC MONITORS, GERM FREE & OPEN ANIMAL FACILITIES HOUSING MANY SPECIES FROM NUDE MICE TO SUB-HUMAN PRIMATES, COMPUTERS FOR ADMIN & TECH/SCIENTIFIC DATA ANALYSIS, GENERAL RESEARCH LABS FULLY EQUIPPED WITH SPECTROMETERS, GAMMA & SCINTILLATION COUNTERS, TRANSMISSION, SCANNING & ELECTRON MICROSCOPES, COLD ROOM FOR FRACTIONATION, & THE LIKE.

INSTALLATION: MATERIALS TECHNOLOGY LABORATORY

WATERTOWN, MA

DIR. DR. E. S. WRIGHT

CDR. COL J. E. KEMPSTER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	52.652	48.285
TOTAL PROCUREMENT	0.015	0.000
TOTAL O&M	6.650	5.576
TOTAL OTHER	0.074	0.060
TOTAL ANNUAL LAB	59.891	58.871
 TOTAL INHOUSE	87.676	88.466
TOTAL INHOUSE RDT&E	88.188	88.891
ANNUAL OPERATING C ^{OST}	9.571	9.649

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		TOTAL PROF	NON- PROF
		PHDS			
MILITARY	14	2		11	3
CIVILIAN	617	66		241	376
TOTAL	631	68		252	379

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
87	852.000	88.261	48.875	488.686	14.879	24.470

...MISSION

MANAGE THE AMC STRUCTURAL MATERIALS AND MECHANICS PROGRAM AS LEAD LAB FOR MATERIALS, MECHANICS AND MANUFACTURING TESTING TECH. CONDUCT RESEARCH AT THE FOREFRONT OF TECHNOLOGY TO PROVIDE THE ADVANCED MATERIALS REQUIRED FOR PRESENT AND FUTURE ARMY WEAPONS SYSTEMS AT REASONABLE COSTS.

...CURRENT IMPORTANT PROGRAMS

METAL AND ORGANIC MATRIX COMPOSITES FOR LIGHTWEIGHT MATERIEL APPLICATION
 ADVANCED ARMOR AND ARMOR PENETRATOR MATERIALS INCLUDING LASER HARDENING
 STRUCTURAL INTEGRITY.NDT, AND LIFE PREDICTION/RELIABILITY MECHANICS
 CERAMICS FOR ELECTRO-OPTICAL, ENGINE, AND GUN TUBE APPLICATIONS
 MATERIALS PROCESSING AND CHARACTERIZATION, METALS, ORGANICS AND CERAMICS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE CENTER POSSESSES THE IN-HOUSE EXPERTISE AND FACILITIES TO PERFORM R&D PROJECTS RANGING FROM THE SYNTHESIS OF NEW AND IMPROVED MATERIALS AND DESIGNS TO THE PROTOTYPE MANUFACTURE OF COMPONENTS FOR ARMY WEAPONS SYSTEMS.METALS PROCESSING EQUIPMENT INCLUDES CASTING, FORGING, ROLLING, HEAT TREATING, JOINING, PLATING, ISOSTATIC PRESSING, VACUUM ARC MELTING, AND MACHINING.CERAMIC PROCESSING EQUIPMENT, SLIP CASTING, HOT PRESSING, SINTERING AND GRADIENT FURNACE.CRYSTAL GROWTH.POLYMER/COMPOSIT PROCESSING EQUIPMENT, INJECTION MOLDING, LAMINATING, TAPE LAYUP, VACUUM FORMING, FILM FORMING AND ORIENTATION, FILAMENT WINDING, PULTRUSION, FOAM PROCESSING AND PILOT POLYMER PRODUCTION.QC AND NDT EQUIPMENT.ULTRASONICS, XRAY AND NEUTRON RADIOGRAPHY, SPECTROSCOPY, HOLOGRAPHY, CHEMICAL ANALYSIS, METALLOGRAPHY AND OPTICS. OTHER: U AND BE MACHINING, BALLISTIC RANGE AND POWDER CHARACTERIZATION.

INSTALLATION: MATERIEL SYSTEMS ANALYSIS ACTIVITY

ABERDEEN PROV GRD, MD

DIR. MR. KEITH A. MYERS DEP DIR. COL JAMES J. WALDECK

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	25.516	26.587
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	4.727	4.888
TOTAL OTHER	0.686	0.713
TOTAL ANNUAL LAB	80.929	82.088
 TOTAL INHOUSE	21.706	28.019
TOTAL INHOUSE RDT&E	17.569	18.272
ANNUAL OPERATING COST	8.740	8.820

PERSONNEL	AUTHORIZED STRENGTH	PERSONNEL DATA (END OF FY 1985)		NON- PROF
		TOTAL PHDS	TOTAL PROF	
MILITARY	80	0	14	16
CIVILIAN	428	18	318	110
TOTAL	458	18	332	126

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP
4	8.140	100.276		1.715	110.181	2.070
						1.366

...MISSION

PREPARE AIR-TO-SURFACE, SURFACE-TO-SURFACE AND ANTI-AIR WPNS EFF MANUALS PROVIDES THE CENTRAL INDEPENDENT TECHNICAL CAPABILITY FOR AMC FOR THE CONDUCT OF MAJOR SYSTEMS ANALYSIS AND COST EFFECTIVENESS STUDIES, SERVES AS AMC LEAD ACTIVITY FOR SURVIVABILITY AND RELIABILITY, AVAILABILITY

...CURRENT IMPORTANT PROGRAMS

TEST DESIGN, EVAL OF APPROX 60 SYSTEMS INCLUDING 120MM GUN AMMO, TCAC, MK19 40MM GRENADE MG, HIRSS, ESSS, AND CVCU FACE MASK. EXAMINE PERFORMANCE AND SURVIVABILITY OF FAMILY OF LIGHT HELICOPTERS. DEVELOP METHODOLOGIES, EVALUATE EFFECTIVENESS OF ADVANCED IFF SYSTEMS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AMSAA MISSION CAPABILITIES INCLUDE' PERFORMING INDEPENDENT TEST DESIGN AND OVERALL EVALUATION FOR DECISIONS ON MAJOR, DESIGNATED NON-MAJOR AND SELECTED OTHER SYSTEMS; PROVIDING OVERVIEW OF LIFE CYCLE SURVEILLANCE PROGRAMS FOR MATERIEL SYSTEMS IN INVENTORY; PROVIDING WEAPONS SYSTEM EFFECTIVENESS ESTIMATES FOR COST AND OPERATIONAL EFFECTIVENESS ANALYSES; PROVIDING SYSTEMS ANALYSIS SUPPORT TO AMC MAJOR SUBORDINATE COMMANDS AND PROJECT/PRODUCT MANAGERS; MAINTAINING DIRECT CONTACT WITH ARMY MATERIEL USERS IN THE FIELD; SERVING AS THE AMC FIELD ACTIVITY FOR ADMINISTERING THE JOINT TECHNICAL COORDINATING GROUP FOR MUNITIONS EFFECTIVENESS, AND PERFORMING LOGISTICS AND READINESS RELATED ANALYSIS.

INSTALLATION: MEDICAL BIOENGINEERING R&D LAB

FORT DETRICK, MD

CDR. COL CARL E. PEDERSEN, JR.

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	18.906	11.190
TOTAL PROCUREMENT	0.251	0.051
TOTAL OEM	0.012	0.000
TOTAL OTHER	2.414	8.180
TOTAL ANNUAL LAB	16.583	14.371
TOTAL INHOUSE	8.499	7.888
TOTAL INHOUSE RDT&E	6.380	5.891
ANNUAL OPERATING COST	2.051	1.950

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	80	100	410	880
CIVILIAN	92	20	850	258
TOTAL	122	120	760	688

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
5	28.691	42.773	18.889	79.853	8.886	4.644	

...MISSION

CONDUCTS R&D IN FIELD MEDICAL MATERIAL, VECTOR CONTROL SYSTEMS, HEALTH HAZARDS, & ENVIRONMENTAL HEALTH EFFECTS, DEVELOPS, TESTS, & EVALUATES FIELD MEDICAL, DENTAL, WATER TREATMENT, & VECTOR CONTROL EQUIPMENT, METHODS, & MATERIALS. ESTAB HEALTH HAZARD DATA BASES.

...CURRENT IMPORTANT PROGRAMS

SIGNIFICANT RESEARCH PROJECTS INCLUDE PESTICIDE DISPERSAL UNIT, MULTICAPABILITY; FLYWHEEL POWERED MOBILE X-RAY GENERATOR; VITAL SIGNS MONITOR; DEVELOPMENT OF INTERIM DRINKING WATER STANDARDS FOR FIVE MUNITIONS COMPOUNDS; & ESTABLISHMENT OF A PROGRAM TO REVISE COMBAT DRINKING WATER STANDARDS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DESIGN, DEVELOP, TEST, & FABRICATE PROTOTYPES, TEST MODELS, & LIMITED QUANTITIES OF FIELD MEDICAL, DENTAL, & VECTOR CONTROL EQUIPMENT, SYSTEMS, AND MATERIALS.

PERFORM HEALTH HAZARD ASSESSMENT ON MILITARY UNIQUE POLLUTANTS. ESTABLISH HEALTH DATA BASES FOR OCCUPATIONAL AND FIELD EXPOSURES TO CHEMICALS AND MICROORGANISMS.

INSTALLATION: MEDICAL MATERIAL DEVELOPMENT ACTIVITY

FT DETRICK, MD

CDR. COL HARRY G. DANGERFIELD

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	45.754	56.596
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.186	0.000
TOTAL OTHER	0.000	1.884
TOTAL ANNUAL LAB	45.940	58.480
 TOTAL INHOUSE	1.756	7.190
TOTAL INHOUSE RDT&E	1.756	5.356
ANNUAL OPERATING COST	0.898	1.659

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	26	10	15	11
CIVILIAN	89	4	7	82
TOTAL	65	14	22	48

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	0.000	12.864	0.000	12.864	0.582	0.120

...MISSION

EXERCISE FULL LINE AUTHORITY OVER CYCLE INTEGRATED MATERIAL MGT OF ALL ASSIGNED SYSTEMS AND/OR PRODUCTS IN ACHIEVING A BALANCED PROGRAM TO ACCOMPLISH THE MATERIAL DEVELOPER'S STATED OBJECTIVES.

...CURRENT IMPORTANT PROGRAMS

IDENTIFICATION SYS BILOGIC AGENT, RAPID FIELD PYRIDOSTIGMINE PRETREATMENT SYSTEM OXYGEN, MEDICAL, FIELD GENERATOR/DISTRIBUTION RESUSCITATIVE FLUID PRODUCTION SYSTEM RADIOGRAPHIC/FLUOROGRAPHIC SYSTEM (HIGH CAPACITY)

...FUNCTIONS/EQUIPMENT/CAPABILITIES

RESPONSIBLE FOR MANAGEMENT OF MEDICAL MATERIAL PROGRAM FOR SUPPORT OF ARMY HEALTH SERVICES.

INSTALLATION: MEDICAL R & D COMMAND

FORT DETRICK, MD

CDR. MG GARRISON P. RAPMUND

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	9.495	10.848
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.840	0.881
TOTAL OTHER	8.229	4.177
TOTAL ANNUAL LAB	18.064	15.851
 TOTAL INHOUSE	10.749	11.277
TOTAL INHOUSE RDT&E	7.180	6.769
ANNUAL OPERATING COST	7.180	6.769

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	60	28	44	16
CIVILIAN	175	0	11	164
TOTAL	235	28	55	180

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	0.000	51.896	0.000	51.896	0.650	8.450

...MISSION

ADMINISTRATION AND COORDINATION OF THE ARMY MEDICAL RDTE PROGRAM LIMITED TO UNIQUE MILITARY PROBLEMS WITHIN THE U.S. AND OCONUS.

...CURRENT IMPORTANT PROGRAMS

CARE OF THE WOUNDED

PREVENTION AND CONTROL OF INFECTIOUS DISEASES

ENHANCEMENT OF MILITARY PERFORMANCE

PROTECTION AGAINST MILITARY ENVIRONMENTAL HAZARDS

MEDICAL DEFENSE AGAINST CHEMICAL & BIOLOGICAL WARFARE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

SERVES AS AN ADMINISTRATIVE HEADQUARTERS FOR THE ARMY MEDICAL DEPARTMENT.

INSTALLATION: MEDICAL RSCH INST OF CHEMICAL DEFENSE

ABERDEEN PROV.GR,MD

CDR. COL JOSEPH C. DENNISTON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	88.882	81.121
TOTAL PROCUREMENT	0.008	0.000
TOTAL O&M	0.091	0.088
TOTAL OTHER	8.628	4.080
TOTAL ANNUAL LAB	42.604	35.284
 TOTAL INHOUSE	 19.846	 20.174
TOTAL INHOUSE RDT&E	16.182	16.061
ANNUAL OPERATING COST	8.800	4.300

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	85	81	89	46
CIVILIAN	155	26	56	99
TOTAL	240	57	95	145

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
81	86.246	22.945	99.029	158.220	9.884	16.703	

...MISSION

FUNDAMENTAL RESEARCH ON MECHANISMS OF ACTION (CW AGENTS-ANTIDOTES & PRETREAT)
 DEVELOPMENT OF PRETREATMENT & ANTIDOTE DRUGS (AGAINST CW AGENTS)
 DEVELOP & EVALUATE PREVENTION, RESUSCITATION, TREATMENT & MANAGEMENT
 METHODS FOR CHEMICAL CASUALTIES & ASSIST IN THEIR IMPLEMENTATION

...CURRENT IMPORTANT PROGRAMS

ESTABLISH MED CHEM DEFENSE SCIENCE BASE/MECHANISM OF ACTION AGENTS/DRUGS
 DEVELOP SOLDIER CW AGENT ANTIDOTES & PRETREATMENT REGIMEN
 DEVELOP BIOMEDICAL MODELS TO EVALUATE DRUG EFFICACY
 EVALUATE BEHAVIORAL/PERFORMANCE DECREMENTS FROM CW AGENTS/ANTIDOTES
 DEVELOP METHODS FOR MGT & TREATMENT OF MASS CW CASUALTIES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MODERN 7000 SQ FT ANIMAL HOLDING FACILITY & CHEMICAL SURETY AREA
 TECH LIBRARY HAS 6000 BOOKS, 1000 JOURNAL TITLES, MANY DATA BASES
 COMPLETE VIDEO PRODUCTION FACILITY & COMPUTER FACILITY (WITH NETWORK)
 MEDICAL MAINTENANCE FACILITY, LABORATORY SUPPLY FACILITY
 RADIOISOTOPE CHEMICAL DRUGS & BIOCHEMICAL ANALYSIS
 BEHAVIORAL TESTING LABORATORY
 LIQUID, GAS, COLUMN & AFFINITY CHROMATOGRAPHY, ANAL ULTRACENTRIFUGE
 ELECTROPHORESIS, SPECTROSCOPY, FLUOROMETRY & SPECTROPOLARIMETRY
 EC MASS SPECTROMETRY & ELECTRON SPIN RESONANCE
 AMINO ACID ANALYSIS & PEPTIDE SEQUENCING, MONOCOLONAL ANTIBODIES
 PHYSIOLOGY, PHARMACOLOGY & NEUROPHARMACOLOGY LABORATORIES
 ELECTRON MICROSCOPY, SEM, TISSUE CULTURE, CELL CLONING, RECEPTOR ANALYSIS

CDR. COL DAVID L. HUXSOLL

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	80.448	41.856
TOTAL PROCUREMENT	0.000	0.000
TOTAL OEM	0.486	0.216
TOTAL OTHER	8.110	10.448
TOTAL ANNUAL LAB	38.994	52.015
 TOTAL INHOUSE	28.995	30.698
TOTAL INHOUSE RDT&E	20.449	20.084
ANNUAL OPERATING COST	10.085	10.940

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	295	50	85	210
CIVILIAN	192	87	94	98
TOTAL	487	87	179	308

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
215	104.186	20.618	197.909	322.663	20.117	14.784	

...MISSION

TO DEVELOP STRATEGIES, PRODUCTS, INFORMATION, PROCEDURES & TRAINING FOR MEDICAL DEFENSE AGAINST BIOLOGICAL WARFARE AGENTS & NATURALLY OCCURRING INFECTIOUS AGENTS OF MILITARY IMPORTANCE THAT REQUIRE SPECIAL CONTAINMENT.

...CURRENT IMPORTANT PROGRAMS

SYSTEMS FOR RAPID IDENTIFICATION & DIAGNOSIS OF POTENTIAL BW AGENTS.
 ANTIVIRAL DRUG SCREENING PROGRAM FOR BW & MILITARILY UNIQUE VIRUSES.
 DEVELOPMENT OF VACCINES AGAINST POTENTIAL BW AGENTS.
 MEDICAL DEFENSIVE STUDIES TO PROTECT AGAINST TRICOTHECENE TOXINS.
 RISK ASSESSMENT-EVALUATION OF VIRUS AGENTS AND THEIR VECTORS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MEDICAL RESEARCH CONDUCTED IN TWO BUILDINGS PROVIDING 300,000 SQ. FEET & CONTAINING 28 MODERN LAB SUITES WITH EMPHASIS ON P4 BIOHAZARD SAFETY CONTAINMENT. P4 OPERATIONS CONDUCTED IN PLASTIC SUITS & MICROBIOLOGICAL CABINET SYSTEMS. THESE LABS CONSTITUTE A UNIQUE RESOURCE IN FREE WORLD FOR SAFE STUDY OF HIGH HAZARD DISEASE AGENTS. SPECIAL 16-BED EXPERIMENTAL WARD PERMITS VACCINE & OTHER STUDIES IN VOLUNTEERS. P4 CONTAINMENT WARD PLUS P4 CLINICAL LAB & P4 TRANSPORT SYSTEM PROVIDE STATE OF ART MEDICAL TREATMENT & DIAGNOSIS FOR MOST HAZARDOUS DISEASES KNOWN. OTHER UNIQUE FEATURES INCLUDE AEROSOL ASSESSMENT, CELL CULTURE ELECTRON MICROSCOPES MASS SPECTROMETRIC FACILITY MUCOSAL LABORATORY DNA TECHNOLOGY HYBRIDOMA LAB COAGULATION LAB EQUIPMENT TO PREPARED EXPERIMENTAL VACCINES & TOXOIDS.

CDR. MG PETER G. BURBULES

DIR. DR. WILLIAM C. MCCORKLE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	192.310	198.284
TOTAL PROCUREMENT	31.808	24.828
TOTAL O&M	14.854	7.446
TOTAL OTHER	2.576	2.688
TOTAL ANNUAL LAB	241.548	227.746
 TOTAL INHOUSE	118.518	105.605
TOTAL INHOUSE RDT&E	71.127	76.495
ANNUAL OPERATING COST	17.929	18.118

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	41	0	81	10
CIVILIAN	888	54	590	298
TOTAL	924	54	621	308

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
11000	728.800	257.200	200.000	1186.000	188.516	128.262

...MISSION

SUPPORT PROJECT MNGED SYSTEMS; MNGE & CONDUCT RSCH, EXPL & ADV DEV FOR MISSILES, ROCKETS, AND HIGH ENERGY LASERS
 PROVIDE TECH SOLUTIONS TO ARMY'S CLOSE COMBAT, FIRE SPT, AIR DEF, AND AVIATION SYS NEEDS TO DEV TECH FOR FUTURE SYS.

...CURRENT IMPORTANT PROGRAMS

SETTER AIR DEFENSE WEAPON
 FIBER OPTICS GUIDED MISSILE DEMO.
 SPARROW-HAWK DEMONSTRATION
 VHSIC AUTOMATIC TARGET TRACKER
 SPATIAL LIGHT MODULATOR

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CENTER IS EQUIPPED TO STUDY PROBLEMS IN PROP, AERO, G&C, &STRUCTURES. MAJOR FAC IS MCMORROW LAB WHICH HOUSES MAJORITY OF CENTER. SOME UNIQUE FAC ARE: ADV SIM CNTR; A COMPUTER COMPLEX SURROUNDED PERIPHERALLY BY 8 ENVIRON EFFECTS SIMULATORS; MSL COMPUTER SOFTWARE/HDWE CNTR; SIG EVAL EN CHAMBERS; ARMY MSL OPTICAL RANGE DESIGNED TO MEASURE LASER RADAR SIG MAINTAINS AND OPERATES 7 MAJOR TEST AREAS WHICH ENCOMPASS FLIGHT STATIC, ENVIRON & FUNCTIONAL TEST; STATE-OF-THE-ART FAC & EQUIP SUCH AS LASER TRACKERS & ELECTRO-MAGNETIC RADAR SENSORS. PERFORMS ARMY LEAD LAB FUNCTION IN GUID & CONTROL/ TERMINAL HOMING TECH AND HIGH POWER/ENERGY LASER TECH. FAC FOR MECH, ELECT&ELEC FABRASSY AND HYBRID MICROCIRCUITRY DESIGN ARE AVAILABLE. SMOKE CHARACTERIZATION FAC IS ALSO AVAILABLE.

INSTALLATION: NATICK RESEARCH DEVELOPMENT AND ENGR CTR Natick, MA

CDR. COL A. D. RODGERS

TECH DIR. MR. EDWARD F. LEVELL

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985		1986
	(ACTUAL)	(ACT + EST)	
TOTAL RDT&E	61.278	68.165	
TOTAL PROCUREMENT	55.154	1.665	
TOTAL O&M	17.176	16.228	
TOTAL OTHER	2.682	2.984	
TOTAL ANNUAL LAB	186.285	88.992	
 TOTAL INHOUSE	54.611	56.876	
TOTAL INHOUSE RDT&E	41.554	42.801	
ANNUAL OPERATING COST	9.229	9.218	

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	102	8	80	72
CIVILIAN	1004	77	549	455
TOTAL	1106	80	579	527

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
78	502.681	51.018	884.905	888.554	23.991	29.854	

...MISSION

ACCOMP R&D IN THE PHYS AND BIOL SCI AND ENGR TO MEET MIL NEEDS IN CLOTHING, PERS EQUIP, AIRDROP FIELD SHELTERS, AND EQUIPAGE. EVALUATE FOOD/FOOD SYS, CONTAINERS AND PACKAGING. PERFORM ILS FUNC, ENG SPT TO DLA AND GSA PROC.

...CURRENT IMPORTANT PROGRAMS

CHEMICAL AND BALLISTIC PROTECTION

LASER/HIGH ENERGY PROTECTION

MICROCLIMATE COOLING PROGRAM FOR GROUND AND AIR COMBAT VEHICLES

COMBAT FIELD FEEDING SYSTEM

CHEMICAL, BALLISTIC AND NUCLEAR HARDENED TACTICAL SHELTERS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

BACTERIOLOGY LAB EQUIP FOR INVESTIGATION OF PATHOGENIC MICROORGANISMS; HIGH RESOLUTION MASS SPECTROMETER FOR ANALYSIS OF VOLATILE COMPOUNDS; FEBETRO MACHINE USED FOR FOOD OXIDATION; SCANNING TRANSMISSION ELECTRON MICROSCOPE; LASER LAB FOR EVAL OF HIGH ENERGY LASERS ON CLO AND RELATED MAT; DYEING AND FINISHING LAB FOR STUDIES OF TEXTILES; COMPUTER GENERATED SYS OF CLO PATTERNS TO OUTPUT COMPL TARIFF OF SIZES FROM ONE MASTER; CLIMATIC CHAMBERS W/TEMPS -57C TO 74C W/WIND AND RAIN; FLAME PROT LAB AND FACILITY INCL OUTDOOR FIRE PIT; AIRCRAFT ROLLER CONVEYER TEST FAC; DROP TEST FAC; 40 X 40 FT RAINCOURT; FOOD PROCESSING PLANT; FOOD SYS EQUIP LAB; EXPERIMENTAL KITCHEN; SENSORY EVALUATION LAB; HORIZONTAL IMPACT TESTING MACHINE; UNIVAC 1106, IBM 4841, PRIME 750 CAD/E, AND PRIME 2250 COMPUTERS WITH PERIPHERAL EQUIPMENT AND SOFTWARE.

INSTALLATION: NIGHT VISION AND ELECTRO-OPTICS LAB

FT. BELVOIR, VA

CDR. MG ROBERT D. MORGAN

DIR. MR. PAUL TRAVESKY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	111.941	114.900
TOTAL PROCUREMENT	58.090	19.500
TOTAL O&M	2.515	2.720
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	172.546	187.120
 TOTAL INHOUSE	89.622	83.648
TOTAL INHOUSE RDT&E	84.677	28.498
ANNUAL OPERATING COST	10.007	10.810

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	83	1	18	20
CIVILIAN	476	85	262	214
TOTAL	509	86	275	234

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	80.000	44.473	87.000	161.473	12.244	88.499

...MISSION

NVAEOC IS RESPONSIBLE FOR PROVIDING THE ARMY WITH TECHNOLOGY AND EQUIPMENT TO PERMIT OPERATION WITH DAYLIGHT EFFICIENCY. THE PROGRAM IS STRUCTURED AROUND A STRONG TECHNOLOGY BASE IN THE AREAS OF IR SENSORS, ELECTROOPTICS, LASERS, VISIONICS AND SIGNAL PROCESSING.

...CURRENT IMPORTANT PROGRAMS

RESEARCH AND DEVELOPMENT OF IR SENSORS
 AUTOMATION OF FLIR AND MULTI-SENSORS
 RESEARCH AND DEVELOPMENT OF VIS/VIR TUNABLE LASERS
 RESEARCH AND DEVELOPMENT OF COUNTER-COUNTERMEASURES
 VISIONICS ANALYSIS AND EVALUATION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

NIGHT VISION SYSTEM LAB. SURFACE RESEARCH FACILITY.
 IR DETECTOR FABRICATION AND ANALYSIS FACILITY.
 FOCAL PLANE ARRAY TEST FACILITY. IR OPTICAL TEST FACILITY.
 IMAGE INTENSIFIER TUBE TESTING FACILITY.
 SEMICONDUCTOR MATERIALS RESEARCH FACILITY.
 ELECTRONICS TEST FACILITY. INTERACTIVE IMAGE PROCESSING FACILITY.
 LASER RANGES. 8-D MULTI-SPECTRAL SEARCH SIMULATOR.
 SCIENTIFIC COMPUTER CENTER. FIRING TEST RANGE.
 EO/IR IMAGE EVALUATION FACILITY.
 LASER MATERIAL EVALUATION FACILITY.

INSTALLATION: RESEARCH INST FOR BEH & SOCIAL SCI

ALEX, VA

CDR. COL WM HENDERSON

TECH DIR. DR. EDGAR M. JOHNSON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	70.241	66.688
TOTAL PROCUREMENT	0.260	0.000
TOTAL O&M	6.557	7.594
TOTAL OTHER	1.794	1.816
TOTAL ANNUAL LAB	78.852	76.098
TOTAL INHOUSE	24.420	25.588
TOTAL INHOUSE RDT&E	22.069	23.625
ANNUAL OPERATING COST	12.053	13.171

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	56	2	86	20
CIVILIAN	842	167	284	108
TOTAL	398	169	270	128

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
0	53.155	14.000	6.200	73.355	0.735	0.862	

...MISSION

TO MAXIMIZE COMBAT EFFECTIVENESS THROUGH RESEARCH IN THE ACQUISITION, DEVELOPMENT, TRAINING, AND UTILIZATION OF SOLDIERS IN MILITARY SYSTEMS

...CURRENT IMPORTANT PROGRAMS

PERFORMANCE BASED SELECTION AND CLASSIFICATION MEASURES

MANPOWER AND PERSONNEL INTEGRATION (MANPRINT)

LOW COST FLIGHT SIMULATION

BATTALION TRAINING PERFORMANCE FACTORS

SENIOR (GO/SES) LEADERSHIP

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE PRINCIPAL ARMY AGENCY CONDUCTING SOLDIER-RELATED RESEARCH AND DEVELOPMENT, CONSISTS OF THREE RESEARCH LABORATORIES AND A BASIC RESEARCH OFFICE. THE LABORATORIES ARE COMPRISED OF TECHNICAL AREAS: PERSONNEL UTILIZATION; SELECTION & CLASSIFICATION; MANPOWER AND PERSONNEL POLICY; LEADERSHIP & MANAGEMENT; EXECUTIVE DEVELOPMENT; BATTLEFIELD INFO SYSTEMS; MANNED SYSTEMS; INSTRUCTIONAL TECHNOLOGY SYSTEMS; TRAINING & SIMULATION; AND DEVELOPMENT ENGINEERING AND ALSO OF FIELD UNITS AND SCIENTIFIC COORDINATION OFFICES LOCATED AT PRESIDIO OF MONTEREY; FT BENNING; FT KNOX; FT RUCKER; FT BLISS; FT HOOD; FT LEAVENWORTH; ORLANDO; FT LEWIS; FT HUACHUCA; OTEA; AVSCOM; AND BOISE.

INHOUSE EXPERIMENTAL FACILITIES INCLUDE LABORATORY AND COMPUTER TERMINAL AREAS PERMITTING REALTIME EXPERIMENTATION, GAMING AND SIMULATION.

INSTALLATION: RSCH INST OF ENVIRONMENTAL MEDICINE

NATICK, MA

CDR. COL BRENDAN E. JOYCE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	10.116	7.812
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.005	0.005
TOTAL OTHER	1.691	2.786
TOTAL ANNUAL LAB	11.812	10.058
 TOTAL INHOUSE	 8.887	 9.129
TOTAL INHOUSE RDT&E	6.641	6.888
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	78	19	50	28
CIVILIAN	84	25	58	26
TOTAL	157	44	108	49

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
4	65.177	14.087	28.647	107.861	4.084	8.860	

...MISSION

CONDUCTS RES TO DETERMINE THE EFF OF TEMP, ALTITUDE, WORK, CHEM DEF, & MILITARY NUTRITION ON THE SOLDIER'S LIFE PROCESSES, PERF, & HEALTH. DEFINES INTERACTION OF ENV STRESS, THE BODY'S DEFENSES, & THE TECHNIQUES EQUIP & PROCEDURES BEST CALCULATED TO PROTECT THE SOLDIER.

...CURRENT IMPORTANT PROGRAMS

INVESTIGATE PHYSIOLOGICAL, PHARMACOLOGICAL, ACCLIMATIZATION, & TRAINING STRATEGIES TO PREVENT INJURY & ENHANCE PERF & ENDURANCE IN HOT, COLD & HIGH TERRESTRIAL ALT ENV. DEVELOP & TEST PHYSIOLOGICAL & PSYCHOLOGICAL TECHNIQUES TO ENHANCE COMBAT CREW EFFECTIVENESS IN SUSTAINED OPNS IN A CHEMICAL ENV. EVAL BIOMED IMPACT OF MIL CLOTHING, SLEEPING SYS & FOOTWR.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE MAJOR EQUIPMENT & FACILITY CAPABILITIES OF THE LAB INCLUDE, BUT ARE NOT LIMITED TO, TWO LARGE ALTITUDE CHAMBERS, 14 SMALL CLIMATIC CHAMBERS, AAALAC ACCREDITED ANIMAL CARE FACILITIES, ELECTRON MICROSCOPY, UNDER-WATER RESEARCH POOL, COPPER MANIKINS & DIVERSE PHARMACOLOGICAL & PSYCHOLOGICAL MEASURING EQUIPMENT. THE INSTITUTE MAINTAINS A FIELD FACILITY ON THE SUMMIT OF PIKES PEAK, CO.

INSTALLATION: SIGNALS WARFARE LAB.

VINT HILL, VA.

CDR. MG ROBERT D. MORGAN

DIR. MR. HERBERT S. HOVET JR.

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	60.828	72.870
TOTAL PROCUREMENT	228.158	149.748
TOTAL O&M	22.905	28.758
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	306.881	246.876
 TOTAL INHOUSE	11.550	18.209
TOTAL INHOUSE RDT&E	5.642	6.656
ANNUAL OPERATING COST	5.660	6.200

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	65	0	18	52
CIVILIAN	205	4	175	80
TOTAL	270	4	188	82

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
10	9.710	35.475	7.440	52.625	4.200	9.920

...MISSION

PERFORM RESEARCH AND DEVELOPMENT OF ARMY SIGNALS INTELLIGENCE (SIGINT), ELECTRONIC WARFARE AND OTHER INTELLIGENCE MATERIEL TO DETERMINE ENEMY INTENTIONS AND POTENTIAL; LOCATE AND IDENTIFY ENEMY CONTROL CENTERS; AND DISRUPT ENEMY OPERATIONS.

...CURRENT IMPORTANT PROGRAMS

SIGINT/EW PROCESSING PROGRAM

EXPENDABLE JAMMER PROGRAM

NDI HIGH FREQUENCY SUBSYSTEM FOR AN/TRQ-82

PRODUCT IMPROVEMENT PROGRAM FOR AN/TSQ-114 (TRAILBLAZER)

IMPROVE STRATEGIC INTERCEPT PROGRAM-TRACECHAIN-TOKEN PAYMENT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE FACILITY AT VINT HILL FARMS IS UNIQUELY SUITED TO ITS COMMUNICATIONS INTERCEPT, PROCESSING, COLLECTION, DIRECTION FINDING AND JAMMING MATERIEL MISSION. FACILITIES AVAILABLE INCLUDE AN ANTENNA FIELD FOR SIGNALS COLLECTION, A COMPUTERIZED SIGNAL ANALYSIS PROCESSING SYSTEM FOR SIGNALS SIMULATION AND ANALYSIS, AND AN IN-HOUSE FACILITY FOR SYSTEM SOFTWARE VERIFICATION AND VALIDATION. THE CENTER IS STAFFED WITH ELECTRONIC ENGINEERS, TECHNICAL SIGNAL ANALYSTS, OPERATION RESEARCH ANALYSTS, INTEGRATED LOGISTICS SUPPORT PERSONNEL, PRODUCT AND QUALITY ASSURANCE TECHNICIANS AND PRODUCTION ENGINEERS TO PROVIDE FOR USEFUL MILITARY EQUIPMENT AND SYSTEMS.

INSTALLATION: TANK AUTOMOTIVE RD&E CENTER

WARREN, MI

CDR. COL A. BURKE

TECH DIR. MR. A. FARKAS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	101.096	117.488
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	19.899	20.246
TOTAL OTHER	1.275	1.275
TOTAL ANNUAL LAB	122.270	188.959
 TOTAL INHOUSE	40.878	89.991
TOTAL INHOUSE RDT&E	28.517	24.618
ANNUAL OPERATING COST	5.874	5.878

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	29	0	22	7
CIVILIAN	775	17	363	412
TOTAL	804	17	385	419

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
11	246.562	123.756	125.74	495.592	285.197	125.666

...MISSION

RESPONSIBLE FOR ACCOMPLISHING DESIGN, DEVELOPMENT, ACQUISITION & INITIAL DEPLOYMENT OF ASSIGNED TANK-AUTO VEHICLES/EQUIPMENT/SYSTEMS. CONDUCT & MANAGE RESEARCH, CONCEPT DESIGN STUDIES & COMPONENT DEVELOPMENTS, PERFORM PROCUREMENT, QUALITY ASSURANCE & RAM-D THRU DEVELOPEMENT.

...CURRENT IMPORTANT PROGRAMS

COMBAT VEHICLE TRACK & SUSPENSION PROGRAM.

COMBAT VEHICLE SURVIVABILITY THRU THREAT WARNING & DATA MGMT.

VEHICLE ELECTRICAL/ELECTRONIC SYSTEMS INTEGRATION.

FUTURE CLOSE COMBAT VEHICLE SYSTEMS. DESIGN, SIMULATION & TEST BED DEMOS.
ADVANCED INTEGRATED PROPULSION SYSTEMS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

VEHICLE BRAKE DYNAMOMETER. ENGINE & TRANSMISSION TEST CELLS.

VEHICLE COMPONENT/SUBSYSTEM INTEGRATION & EVALUATION. VEHICLE MOTION SIMULATOR. ANALYTICAL PREDICTION OF LAND VEHICLE PERFORMANCE. VEHICLE SIGNATURE MEASUREMENT CAPABILITY. SIX DEGREE OF FREEDOM SIMULATOR SCIENTIFIC & ENGINEERING COMPUTER NETWORK (SENET) FOR COMPUTER AIDED DESIGN (CADE) SERVICES. METAL ANALYSIS WITH MICROPROBE ELECTRON MICROSCOPE ANALYZER & TECHNIQUES. DEVELOPMENT OF IMPROVED ARMOR WELDING, FABRICATION & APPLICATION TECHNIQUES. LOW TEMPERATURE SHOCK & VIBRATION TEST FACILITIES, IMAGE PROCESSING CAPABILITY. HOLOGRAPHIC CAPABILITY FOR LARGE STRUCTURES.

INSTALLATION: TROPIC TEST CENTER

FT CLAYTON, PANAMA

CDR. COL EDWARD GRIER, JR. TECH DIR. MAJ. WILLIAM SZYMANSKI

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	8.682	8.818
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	1.648	1.701
TOTAL ANNUAL LAB	5.825	5.519
 TOTAL INHOUSE	5.229	5.428
TOTAL INHOUSE RDT&E	8.588	8.722
ANNUAL OPERATING COST	0.476	0.476

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	70	0	12	58
CIVILIAN	61	2	11	50
TOTAL	181	2	28	108

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2624	18.000	85.925	88.756	187.681	2.878	4.918

...MISSION

PLAN, CONDUCT AND REPORT ON TROPIC ENVIRONMENTAL PHASES OF DEVELOPMENT TEST II AND OTHER DEVELOPMENTAL TYPE TESTS. PROVIDE ADVICE AND GUIDANCE ON TESTS AND EVALUATION MATTERS TO MATERIEL DEVELOPERS, MATERIEL PRODUCERS, OTHER SERVICES AND PRIVATE INDUSTRY.

...CURRENT IMPORTANT PROGRAMS

M111 TANK SYSTEM
M-8 CAVALRY FIGHTING VEHICLE (BRADLEY)
MODULAR FIELD KITCHEN
CHEMICAL AGENT MONITOR
MODULAR PACK MINE SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TEST FACILITIES AND LABORATORIES WITH INSTRUMENTS AND EQUIPMENT FOR CONDUCTING TROPICAL TESTS OF DOD MATERIEL IN THE NATURAL ENVIRONMENT TO INCLUDE ELECTRONICS, HUMAN FACTORS, CHEMICAL, MICROBIOLOGICAL, MATERIALS, SOILS, AUDIO-VISUAL, AND DATA ANALYSIS LABORATORIES.

OTHER TEST RESOURCES CONSIST OF FIRING RANGES, NATURAL TERRAIN MOBILITY COURSES, AMMO TEST STORAGE AND FUNCTIONING AREAS, JUNGLE, GRASS, AND COASTAL MATERIEL EXPOSURE SITES, JUNGLE RADIO RANGING SITES, POL TANK FARM, MANPACK PORTABILITY COURSE, CALIBRATED SEISMIC DETECTION AND CHEMICAL TEST GPSIDS AND 2588 ACRES OF BROADLEAF EVERGREEN TREES, SEMIDEciduous TREES, MARSHLAND, GRASSLAND, CORAL REEFS, FLAT AND HILLY TERRAIN AND ALL TYPES OF VEGETATION.

INSTALLATION: WALTER REED ARMY INSTITUTE OF RESEARCH

WASHINGTON, D.C.

CDR. COL FRANKLIN H. TOP, JR.

DEP DIR. CLIFFORD A. ROBERTS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	84.639	79.082
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	2.009	1.718
TOTAL OTHER	16.586	19.168
TOTAL ANNUAL LAB	108.234	99.968
 TOTAL INHOUSE	59.158	61.329
TOTAL INHOUSE RDT&E	40.567	40.492
ANNUAL OPERATING COST	8.555	3.555

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON-
				PROF
MILITARY	451	98	301	150
CIVILIAN	554	68	232	322
TOTAL	1005	166	533	472

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)	COST (MILLION \$)					
		LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
203	383.274	61.600	0.000	444.874	10.080	28.053	

...MISSION

PERFORMS GENERAL MILITARY MEDICINE RESEARCH IN THE AREAS OF COMM DIS AND IMMU SURGERY, DRUG DEV, NEUROPSY, GEN MED AND PREV MED. SERVES AS COMMAND AND CONTROL ELEMENT FOR THE SPEC FOREIGN ACTIVITIES, PLANS AND CONDUCTS AMEDD COURSES

...CURRENT IMPORTANT PROGRAMS

BASIC RESEARCH ON MILITARY DISEASES

MILITARY PHYCHIATRY

MICROWAVE INJURY, PREVENTION AND TREATMENT

MED EFFECTS OF WEAPONS SYS BLAST OVERPRESSURE

MED ASPECTS OF CHEM WARFARE DEF

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR EQUIP AND CAPABILITY OF THE LAB INCLUDES CHEM ANALY EQUIP, MICROBIOLOGICAL LABS, MICROWAVE EXPOSURE SYS, BEHAVIORAL RES INSTRUMENTATION AND ELECTRON MICROSCOPES. ADDITIONAL RESEARCH FACILITIES ARE LOCATED IN GERMANY, MALAYSIA, KENYA, BRAZIL.

INSTALLATION: WHITE SANDS MISSILE RANGE

WHITE SANDS MR, NM

CDR. MG NILES J. FULWYLER CH SCI/TECH DIR DR. RICHARD H. DUNCAN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	213.402	220.281
TOTAL PROCUREMENT	17.809	18.165
TOTAL O&M	26.274	19.706
TOTAL OTHER	27.255	28.384
TOTAL ANNUAL LAB	284.740	286.486
 TOTAL INHOUSE	215.803	219.855
TOTAL INHOUSE RDT&E	167.021	172.366
ANNUAL OPERATING COST	39.600	46.370

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	878	5	279	599
CIVILIAN	2664	71	1085	1579
TOTAL	3542	76	1364	2178

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
1741360	62.129	674.856	4368.390	5104.875	239.179	229.942	

...MISSION

TO PROVIDE AND OPERATE A NATIONAL TEST RANGE AND THE HIGH ENERGY LASER SYSTEMS TEST FACILITY. TO TEST AND EVALUATE ARMY MATERIEL AND OPERATE AND MAINTAIN THE INSTALLATION.

...CURRENT IMPORTANT PROGRAMS

ARMY-PERSHING, PATRIOT, CHAPARRAL, MLRS, SRHIT, STINGER AND HAWK AIR FORCE-AMRAAM, AIM AND F-15 TACTICAL OPERATIONS AND TRAINING NAVY-ROLLING AIRFRAME MISSILE, STANDARD MISSILE AND SOUNDING ROCKETS, NASA-SHUTTLE TRAINING/OPERATIONS AND TRACKING DATA RELAY SATELLITE SYS OTHER-TRI-SERVICE DIRECTED-ENERGY TESTS AND DNA, DOE AND OTHER TESTS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

WSMR, AN ALL-OVERLAND TEST RANGE, PROVIDES TREMENDOUS LAND AND AIRSPACE FOR MISSILE SYSTEM/SUBSYSTEM TESTING. THE RANGE PROVIDES INTERNAL AND EXTERNAL MEASUREMENTS DATA UTILIZING TELEMETRY (SECURE) AND RADAR, LASER TRACKING, INTERFEROMETER, OPTICAL AND OTHER INSTRUMENTATION SYSTEMS. THESE SYSTEMS, THE LAUNCH COMPLEXES, CONTROL CENTERS AND DATA PROCESSING AND DISPLAY FACILITIES ARE JOINED BY EXTENSIVE TIMING AND COMMUNICATIONS SYSTEMS. OTHER CAPABILITIES INCLUDE: EXPERIMENTAL PAYLOAD AND MISSILE COMPONENT RECOVERY; AIR-AND GROUND MULTIPLE-TARGET CONTROL AND GEODETIC SURVEYING. OTHER TEST FACILITIES AND EQUIPMENT INCLUDE: GUIDANCE, ELECTRO-OPTICAL AND MICRO-WAVE SYSTEMS; DYNAMIC AND CLIMATIC ENVIRONMENTS, CHEMICAL, METALLURGICAL, MICROBIOLOGICAL, NUCLEAR AND ELECTROMAGNETIC EFFECTS AND HAZARDOUS WARHEADS AND EXPLOSIVES.

INSTALLATION: YUMA PROVING GROUND

YUMA, AZ

CDR. COL OLIVER C. STOKES

TECH DIR. MR. WAHNER E. BROOKS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	44.478	48.221
TOTAL PROCUREMENT	11.221	13.293
TOTAL O&M	1.894	2.363
TOTAL OTHER	7.688	6.618
TOTAL ANNUAL LAB	65.281	70.495
TOTAL INHOUSE	39.185	40.702
TOTAL INHOUSE RDT&E	26.415	26.834
ANNUAL OPERATING COST	21.506	21.353

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	424	6	36	388
CIVILIAN	733	3	164	569
TOTAL	1157	3	200	957

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
838314	1.144	79.427	1510.461	1591.032	64.790	122.824

...MISSION

PLAN, CONDUCT, SUPPORT DEVELOPMENT TEST OF AIR DELIVERY SYSTEMS, LONG RANGE TUBE ARTILLERY, AIRCRAFT ARMAMENT, DIRECT FIRE WEAPONS AND AUTOMOTIVE EQUIPMENT. PLAN AND CONDUCT DESERT FIELD TESTS AND ENVIRONMENTAL SIMULATION. DEVELOP TEST INSTRUMENTATION AND METHODS.

...CURRENT IMPORTANT PROGRAMS

GLOBAL POSITION SYSTEM
ADVANCED ATTACK HELICOPTER
INFANTRY FIGHTING VEHICLE
60K AIR DELIVERY SYSTEM
XM 900 105MM CARTRIDGE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

INSTRUMENTED OVERLAND 60KM ARTILLERY RANGE WITH SUPPORT FACILITIES. 20 X 30KM AIRCRAFT ARMAMENT RANGE AND AIR DELIVERY DROP ZONES SUPPORTED BY 6 LASER TRACKERS, POSITION LOCATING SYSTEM, TM, CINTHEODOLITES, VERSATILE TRACKING MOUNTS, AND VIDEO SCORING/EVENTS CONNECTED TO A REAL-TIME DATA PROCESSING SYSTEM WITH 3 DISPLAY AND CONTROL CENTERS. 5 SEP AIRSPACE CONTROLLED AREAS PERMIT SAFE CONDUCT OF CONCURRENT TESTS. EIGHTEEN AUTOMOTIVE TEST COURSES FOR PERFORMANCE, MOBILITY AND DURABILITY TESTS INCLUDING PAVED DYNMOMETER COURSE WITH MOBILE DYNAMOMETERS AND SUPPORT SHOP PHYSICAL MEASUREMENT, TDT, X-RAY, PETROLEUM AND CHEM LABS STATIONARY, MOVING VISUAL TARGETS AND THERMAL TARGET PANELS SCIENTIFIC COMPUTER CENTER WITH REAL-TIME AND BATCH DATA PROCESSING, HARD SURFACE AIRFIELD WITH 5150 AND 6000 FT RUNWAYS, MAINTENANCE FACILITY

INSTALLATION: AEROSPACE MEDICAL RESEARCH LABORATORY

PENSACOLA, FL

CO. CAPT J. O. HOUGHTON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	5.136	5.996
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.080	0.018
TOTAL OTHER	1.378	1.877
TOTAL ANNUAL LAB	6.544	7.891
 TOTAL INHOUSE	 6.544	 7.891
TOTAL INHOUSE RDT&E	5.136	5.996
ANNUAL OPERATING COST	1.408	1.763

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	37	9	17	20
CIVILIAN	56	13	34	22
TOTAL	93	22	51	42

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
1	107.780	6.632	2.554	116.966	2.818	5.486	

...MISSION

CONDUCT RESEARCH DEVELOPMENT TEST AND EVALUATION IN AVIATION MEDICINE AND ALLIED SCIENCES TO ENHANCE HEALTH SAFETY AND READINESS OF AVIATION PERSONNEL.

...CURRENT IMPORTANT PROGRAMS

BIOMEDICAL EFFECTS OF CHEMICAL AGENTS ANTIDOTES

PERFORMANCE-BASED MEDICAL STANDARDS FOR AVIATION

HUMAN FACTORS DESIGN CRITERIA DEVELOPMENT.

PHYSIOLOGICAL AND BEHAVIORAL EFFECTS OF NON-IONIZING RADIATION

HUMAN PERFORMANCE ASSESSMENT AND ENHANCEMENT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

SLOW ROTATION ROOM. CORIOLIS ACCELERATION PLATFORM. HUMAN DISORIENTATION DEVICE. STILL-WERNER CHAIR. OFF VERTICAL ROTATING CHAIR. ANECHOIC AND REVERBERANT CHAMBERS. AUTOMATED PULMONARY FUNCTION. TREADMILL. VECTOR AND ECHOCARDIOGRAPH. THERMOGRAPHIC IMAGING SYSTEM. 30 BINOCULAR EYE TRACKER AND VISUAL STIMULATOR ELECTRON MICROSCOPE. VIVARIUM WITH OPERATING SUITE. EQUIPPED FOR HUMAN AND ANIMAL EXPERIMENTS IN UNUSUAL FORCE ATMOSPHERIC ACOUSTICAL ELECTROMAGNETIC ENVIRONMENTS. COMPLEX TASKS HUMAN PERFORMANCE MEASUREMENT SYSTEMS.

INSTALLATION: AIR DEVELOPMENT CENTER

WARMINSTER, PA

CO. CAPT. E. J. STURM

TECH DIR. MR. R. S. BUFFUM

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	258.062	300.189
TOTAL PROCUREMENT	136.895	159.371
TOTAL Q&M	60.087	63.535
TOTAL OTHER	11.368	7.463
TOTAL ANNUAL LAB	465.862	530.508
TOTAL INHOUSE	181.889	198.073
TOTAL INHOUSE RDT&E	112.427	127.863
ANNUAL OPERATING COST	67.781	77.884

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	267	8	75	192
CIVILIAN	2574	62	1540	1084
TOTAL	2841	65	1615	1226

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
840	869.000	84.000	654.000	1607.000	38.396	72.848

...MISSION

TO BE THE PRINCIPAL NAVY RDT&E CENTER FOR NAVAL AIRCRAFT SYSTEMS
LESS AIRCRAFT-LAUNCHED WEAPONS SYSTEMS

...CURRENT IMPORTANT PROGRAMS

CV-ASW MODULE (CARRIER ASW)

VS/VP, F14/F18 PROGRAMS

LIGHT AIRBORNE MULTI-PURPOSE SYSTEMS (LAMPS)

TACAMO/ECX STRATEGIC COMMUNICATION AIRCRAFT

J-TIDS (JOINT TACTICAL INFORMATION DISTRIBUTION SYSTEM)

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AIR WARFARE ANALYSIS, AIR ASW ANALYSIS, AIR COMBAT SYSTEMS ENGINEERING AND INTEGRATION. AIR VEHICLES (STRUCTURES, MATERIALS, FLIGHT DYNAMICS, PERFORMANCE, FLIGHT CONTROL), AIR VEHICLES-RELATED HUMAN FACTORS. AIRCRAFT, SURFACE SHIP, AND SUBMARINE NAVIGATION SYSTEMS. AIRCRAFT CREW EQUIPMENT AND LIFE SUPPORT. AEROSPACE MEDICINE AND AVIATION PHYSIOLOGY. AIR COMMAND AND CONTROL SYSTEMS. AIR TARGETS (SUB-SCALE). DEVELOPMENT AND INTEGRATION OF AIRBORNE SYSTEMS INCLUDING ELECTRONIC SURVEILLANCE AND COUNTER MEASURES, COMMUNICATION, NAVIGATION INFORMATION, ENVIRONMENTAL SENSING (ELECTROMAGNETIC/MAGNETIC, ACOUSTIC, ELECTRO-OPTIC AND PHOTOGRAPHIC). LAB FACILITIES: CENTRAL COMPUTER FACILITY, VIBRATION, THERMAL & PRESSURE FACILITIES. FLIGHT SIMULATION-CENTRIFUGE, SONOBUOY TEST FACILITY, INERTIAL NAVIGATION FACILITY.

INSTALLATION: AIR PROPULSION CENTER

TRENTON, NJ

CO. CAPT H. G. CHALKEY

DIR. RES. MGMT MR. D. R. SNYDER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	50.721	67.939
TOTAL PROCUREMENT	2.087	3.010
TOTAL Q&M	0.186	0.521
TOTAL OTHER	2.412	1.451
TOTAL ANNUAL LAB	55.356	72.921
 TOTAL INHOUSE	 34.758	 46.350
TOTAL INHOUSE RDT&E	30.676	41.855
ANNUAL OPERATING COST	11.042	18.696

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	8	0	7	1
CIVILIAN	711	2	221	490
TOTAL	719	2	228	491

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
68	488.390	27.962	92.816	609.168	52.190	11.185

...MISSION

PROVIDE NAVAIR & FLEET COMPLETE TECHNICAL & ENGINEERING SUPPORT FOR AIR-BREATHING PROPULSION SYSTEMS, ACCESSORIES, COMPONENTS AND FUELS & LUBES. MANAGE AND PERFORM APPLIED R&D ON NEW PROPULSION SYSTEMS; EVALUATE NEW SYSTEMS. BY T&E ASSURE MISSION ACCOMPLISHMENT AND SOLVE FLEET PROBLEMS

...CURRENT IMPORTANT PROGRAMS

CRUISE MISSILE ENGINE (F107/F112) WARRANTY/DEVELOPMENT TESTING
 F110 AUGMENTOR AERODYNAMIC DEVELOPMENT TEST
 F109 GYROSCOPIC MOMENT TEST
 PW1120 ALTITUDE DEVELOPMENT TEST
 T56-A-427 PRELIMINARY FLIGHT RATING ALTITUDE TEST

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THREE LARGE ALTITUDE CELLS, TWO LARGE SEA LEVEL CELLS AND FOUR SMALL ALTITUDE CELLS PROVIDE ENVIRONMENTAL AND FLIGHT SIMULATION CAPABILITY OF SEA LEVEL TO 100000 FEET; MINUS 65 TO PLUS 350 DEGREES F; FLIGHT SPEEDS FROM ZERO TO MACH 3 TO TEST TURBOJET/FAN AND TURBOPROP/SHAFT ENGINES FIVE TEST ROOMS TO TEST STARTERS, ACCESSORIES AND AUXILIARY POWER UNITS TEN TEST ROOMS AND CHEMISTRY LAB USED FOR R&D ON FUELS, LUBES AND BEARINGS. SPECIAL TEST FACILITIES ARE ROTOR SPIN FACILITY, HELICOPTER TRANSMISSION TEST FACILITY, GYRO RIG AND ENGINE TURNTABLE. FACILITIES ARE USED FOR R&D ON ADVANCED FUELS AND LUBRICATING OILS, OIL-WETTED ENGINE COMPONENTS, AIR POLLUTION, LOW CYCLE FATIGUE, CONTAINMENT NOISE AND I/R PROGRAMS. NAPC QUALES OILS, MANAGES NAVY EXPLORATORY AND ADV DEVEL PRCMS, PROVIDES ADMN & TECH DIR TO SELECTED NAVAIR CONTRACTS.

INSTALLATION: AIR TEST CENTER

PATUXENT RIVER, MD

CO. RADM J. K. READY

TECH DIR. MR. J. F. LYNCH

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	150.404	165.420
TOTAL PROCUREMENT	69.810	73.873
TOTAL Q&M	49.219	55.971
TOTAL OTHER	63.879	60.876
TOTAL ANNUAL LAB	833.312	855.640
 TOTAL INHOUSE	240.937	260.305
TOTAL INHOUSE RDT&E	103.952	114.330
ANNUAL OPERATING COST	88.041	94.632

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	1608	0	0	1608
CIVILIAN	2821	5	672	1649
TOTAL	3929	5	672	3257

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
7123	1261.133	483.407	248.753	1943.293	179.600	76.222	

...MISSION

NAVY'S PRINCIPAL AIRCRAFT WEAPONS SYSTEM TEST AND EVALUATION ACTIVITY THROUGH ACTIVE TEST AND EVALUATION PARTICIPATION IN ALL PHASES OF THE WEAPONS SYSTEM LIFE CYCLE PROCESS. THIS INCLUDES FULL SCALE DEVELOPMENT; PRODUCTION AND FLEET SUPPT; AND FLEET IN-SERVICE ENGINEERING SUPPT.

...CURRENT IMPORTANT PROGRAMS

E2C
F/A-18
AV-8B
CH-53E
TOMAHAWK

...FUNCTIONS/EQUIPMENT/CAPABILITIES

LARGE, INSTRUMENTED, RESTRICTED AIRSPACE PLUS DIRECT ACCESS TO INSTRUMENTED OFFSHORE WARNING AREAS/REAL-TIME RANGE AND AIRCRAFT TELEMETRY DATA PROCESSING AND DATA DISPLAY/SIMULATION CAPABILITIES FOR AIRBORNE WEAPONS SYSTEMS AND SOFTWARE/ENVIRONMENTAL STIMULATION CAPABILITIES FOR UNDERWATER ACOUSTICS, ELECTRONIC WARFARE AND ELECTROMAGNETIC VULNERABILITY AND EFFECTS TESTING/AIRCRAFT GUN FIRING TUNNEL/ELECTRICAL SYSTEM TEST FACILITY/CONTROLLED ENVIRONMENT ENGINE, HYDRAULIC, FUEL, ENVIRONMENTAL, AND ELECTRICAL TEST CAPABILITY/SHIPBOARD CATAPULT AND ARRESTING GEAR/ANTENNA TEST RANGE/LAND, SEA, AND AIR TARGETS/SHIP GROUND STATION FOR LAMPS TESTING/ELECTROMAGNETICALLY SHIELDED HANGAR/PRECISION ELECTRO-OPTICAL TARGET/EXTENSIVE AIRCRAFT AND GROUND-BASED INSTRUMENTATION POOL AIDED BY DEVELOPMENT, FABRICATION AND INSTALLATION FACILITIES.

INSTALLATION: ATLANTIC FLEET WEAPONS TRAINING FACILITY

ROOSEVELT ROADS, P.R.

CO. CAPT ROBERT S. MCFARLAND TECH DIR. MR. J. R. BROUN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	0.200	0.000
TOTAL PROCUREMENT	8.300	0.500
TOTAL Q&M	24.003	24.855
TOTAL OTHER	6.228	12.913
TOTAL ANNUAL LAB	38.731	38.268
 TOTAL INHOUSE	 8.610	 8.045
TOTAL INHOUSE RDT&E	0.000	0.000
ANNUAL OPERATING COST	3.100	2.092

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	93	0	29	64
CIVILIAN	42	0	32	10
TOTAL	135	0	61	74

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
3530	0.000	14.957	225.152	240.109	19.268	135.179

...MISSION

TO OPERATE, MAINTAIN AND DEVELOP WEAPONS TRAINING FACILITIES AND SERVICES IN DIRECT SUPPORT OF THE TRAINING OF FLEET FORCES AND OTHER ACTIVITIES AND FOR THE DEVELOPMENT, TEST AND EVALUATION OF WEAPONS SYSTEMS .

...CURRENT IMPORTANT PROGRAMS

GPS/SMILS TESTS
 CNO PROJ 628 SM-2 BLK II
 CNO PROJ 100 AEGIS PROGRAM
 TOMAHAWK

...FUNCTIONS/EQUIPMENT/CAPABILITIES

NAVY'S LARGEST TRAINING FAC FOR ATLANTIC FORCES WITH 202,000 SQ.MI. COMBINED SEA AREA FOR AIR, SURFACE AND SUBSURFACE WARFARE OPERATIONS. CENTRAL COMMAND AND CONTROL SYSTEM WITH NTDS LINKING, REALISTIC EW ENVIRONMENT, SURVEILLANCE/TRACK RADARS, AIR/SURFACE TARGETS PRESENTATION, LARGE SCREEN DISPLAY SYSTEM FOR OPS MONITOR/CONTROL, EVENT RECONSTRUCTION, AND VARIOUS OTHER INSTRUMENTATION SYS. FLTAC FIELD STATION FOR MISSILE ANALYSIS AND EVALUATION. AIR TO GRND AND SURFACE TO SURFACE WEAPONS TARGET FACILITIES FOR CONVENTIONAL AIRCRAFT ORDNANCE DELIVERY, STRAFING AND NAVAL GUNFIRE WITH RADAR, TV BOMB SCORING SYSTEM AND OTHER SCORING/SPOTTING SYSTEMS. UNDERWATER RANGE FOR PRECISION SURFACE AND SUBSURFACE TRACKING, WSATS AND FORACS. NAVSTA PROVIDES FOR AIRCRAFT/SHIPS LOGISTICS SUPPORT, BOQ AND BEQ.

INSTALLATION: BIODYNAMICS LABORATORY

NEW ORLEANS, LA

CO. CAPT ROBERT J. BIERNSNER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	8.874	8.909
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.813	0.837
TOTAL ANNUAL LAB	4.687	4.746
 TOTAL INHOUSE	4.005	4.267
TOTAL INHOUSE RDI&E	3.192	3.430
ANNUAL OPERATING COST	0.520	0.400

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	84	5	19	15
CIVILIAN	53	3	19	34
TOTAL	87	8	38	49

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	85.702	24.452	0.000	60.154	2.070	0.279

...MISSION

CONDUCT BIOMED RSCH ON EFFECTS OF MECH FORCES (MOTION, VIBRATION, IMPACT) ENCOUNTERED IN SHIPS AND AIRCRAFT BY NAVY PERSONNEL; ESTABLISH HUMAN TOLERANCE LIMITS FOR THESE FORCES; DEVELOP PREVENTIVE AND THERAPEUTIC METHODS TO PROTECT PERSONNEL FROM DELETERIOUS EFFECTS OF SUCH FORCES.

...CURRENT IMPORTANT PROGRAMS

LONG-TERM EFFECTS OF BIODYNAMIC STRESS EXPERIMENTS
PHYSIOLOGICAL AND PERFORMANCE EFFECTS OF SHIP MOTION ON CREW MEMBERS
DETERMINATION OF HUMAN DYNAMIC RESPONSE TO IMPACT ACCELERATION
EFFECTS OF IMPACT ACCELERATION ON HUMAN NEUROPHYSIOLOGY
DEVELOPMENT OF AND VALIDATION OF HUMAN ANTHROPOMORPHIC MANIKINS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

IMPACT FACILITY 1 MEGA N THRUST ACCELERATOR. 213M ENVIRONMENTALLY ENCLOSED TRACK. 17.3K N THRUST VERTICAL ACCELERATOR. XRAY CINEMATOGRAPHY ELECTRODYNAMIC MOTION EXCITORS. C210 SHAKER. SHIP MOTION GENERATOR. 22 CHANNEL INERTIA DATA ACQUISITION SYSTEM AND HIGH SPEED CAMERA EQUIPPED FOR HUMAN AND ANIMAL EXPERIMENTS IN UNUSUAL FORCE ATMOSPHERIC ACOUSTICAL ELECTROMAGNETIC ENVIRONMENTS.

INSTALLATION: BIOSCIENCES LABORATORY

NSC OAKLAND, CA

CO. CAPT W. P. CARNEY

SCI DIR. DR. KINGSBURY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	4.154	4.852
TOTAL PROCUREMENT	0.000	0.000
TOTAL Q&M	0.000	0.000
TOTAL OTHER	0.293	0.202
TOTAL ANNUAL LAB	4.447	4.554
 TOTAL INHOUSE	 4.447	 4.554
TOTAL INHOUSE RDT&E	4.154	4.852
ANNUAL OPERATING COST	0.632	0.671

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON PROF
MILITARY	9	3	13	4
CIVILIAN	4	0	0	4
TOTAL	13	3	13	8

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5	77.625	8.731	84.646	121.002	1.000	6.962

...MISSION

THE MISSION OF THE BIOSCIENCE LABORATORY IS TO CONDUCT RESEARCH AND DEVELOPMENT IN THE BIOSCIENCES RELATED TO THE NEEDS OF THE NAVAL ESTABLISHMENT

...CURRENT IMPORTANT PROGRAMS

IMMUNE MECHANISMS OF INFECTIOUS DISEASES

RAPID DETECTION OF MICROORGANISMS

RECOMBINANT DNA TECHNOLOGY

VECTOR COMPETENCE OF MOSQUITOES

TOXIC EFFECTS OF ORGANOMETAL COMPOUNDS IN THE MARINE ENVIRONMENT

...FUNCTIONS/EQUIPMENT/CAPABILITIES

EQUIPMENT INCLUDES CLASS 3 CONTAINMENT FACILITIES FOR HANDLING PATHOGENIC VIRUS AND BACTERIA, HYBRIDOMA FACILITY FOR MONOCLOINAL ANTIBODY PRODUCTION, CHARACTERIZATION, AND EXPANSION IN TISSUE CULTURE AND LABORATORY ANIMALS, ZILOG COMPUTER SYSTEM, ELECTRON SPIN RESONANCE AND NUCLEAR MAGNETIC RESONANCE SPECTROMETERS, SPECTROFLUOROMETER, AND SCANNING ELECTRON MICROSCOPES, PROGRAMMED CELL FREEZING SYSTEM, 35-L AIRLIFT FERMENTER, DYNATECH ROBOTICS SAMPLING SYSTEM. NBL IS A CONTRACT BASIC RESEARCH LABORATORY WITH SCIENTIFIC AND TECHNICAL STAFF BEING MOSTLY UNIV. CALIFORNIA-BERKELEY EMPLOYEES.

INSTALLATION: CIVIL ENGINEERING LABORATORY

PORT HUENEME, CA

CO. CAPT JAMES A. CAUGHMAN

TECH DIR. DR. DONALD L. BIRKIMER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	42.080	35.970
TOTAL PROCUREMENT	1.380	3.311
TOTAL O&M	4.671	7.038
TOTAL OTHER	4.909	6.571
TOTAL ANNUAL LAB	53.040	52.890
 TOTAL INHOUSE	27.131	27.298
TOTAL INHOUSE RDT&E	21.800	18.942
ANNUAL OPERATING COST	6.150	6.270

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	17	0	7	10
CIVILIAN	391	32	223	168
TOTAL	408	32	230	178

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
82	112.965	7.746	16.493	137.204	8.727	5.670

...MISSION

MISSION OF LABORATORY IS TO BE THE PRINCIPAL RDT AND E CENTER FOR NAVY SHORE FACILITIES, FIXED SURFACE AND SUBSURFACE OCEAN FACILITIES AND FOR THE NAVY AND MARINE CORPS CONSTRUCTION FORCES.

...CURRENT IMPORTANT PROGRAMS

NAVY SHORE FACILITIES SUPPORT. NAVY SEAFLOOR INSTALLATIONS, AMPHIBIOUS AND ADVANCED BASE TECHNOLOGY. ENVIRONMENTAL PROTECTION. ORGANIC MATERIALS. ENERGY TECHNOLOGY. DEEP OCEAN TECHNOLOGY. OFFSHORE BULK FUEL TRANSFER. INDEPENDENT EXPLORATORY DEVELOPMENT. INDEPENDENT RESEARCH. CONTAINER OFF-LOADING TRANSFER SYSTEM (COTS). MARINE CORPS. ARMY.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PRESSURE VESSEL FACILITY WITH 9, 18, 34, 72. INCH VESSELS SIMULATION PRESSURES TO OCEAN DEPTHS OF 20,000 FEET. DIVING LOCKER AND EQUIPMENT FOR 10 DIVERS. SEA FLOOR SOILS LAB. ENERGY TEST BED. CLASS G PHOTO LAB. PHYSICAL SECURITY LABS. CHEMISTRY LAB. INSTRUMENTATION LAB. HARPY TUG ELECTROMAGNETIC FACILITY. CORROSION AND METALLURGICAL LAB. ENVIRONMENTAL RESEARCH LAB. CDC 8090 TERMINAL WITH HIGH SPEED READER AND LINE PRINTER. DIGITAL MAG TAPE. PEN PLOTTER. CURRENT SENSORS LAB. ENERGY MONITORING CAPABILITY. PROTOTYPE MACHINE. WELDING, CARPENTER, AND RIGGING SHOPS. SHALLOW OCEAN SIMULATION FACILITY. MATERIAL TESTING LAB. ELECTRICAL SYSTEMS LAB. CONCRETE MIXING LAB. AGGREGATE PROCESSING LAB. DATA PROCESSING CENTER.

INSTALLATION: CLOTHING & TEXTILE RESEARCH FACILITY

NATICK, MA

CO. CDR GARY R. PETERSON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	8.049	2.608
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	1.463	1.458
TOTAL OTHER	0.054	0.144
TOTAL ANNUAL LAB	4.566	4.210
 TOTAL INHOUSE	4.162	3.711
TOTAL INHOUSE RDT&E	2.671	2.109
ANNUAL OPERATING COST	0.258	0.283

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	1	0	1	0
CIVILIAN	57	1	43	14
TOTAL	58	1	44	14

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROF	EQUIP	
1	12.660	10.200	3.600	26.460	1.054	0.878	

...MISSION

CONDUCT RESEARCH DEVELOPMENT TEST & EVALUATION & PROVIDE ENGINEERING SUPPORT IN CLOTHING TEXTILES & RELATED FIELDS ASSOCIATED WITH SERVICE CLOTHING & ENVIRONMENTAL PROTECTIVE CLOTHING

...CURRENT IMPORTANT PROGRAMS

BATTLE DRESS AND CBR CLOTHING

MATERIAL INVESTIGATIONS TO MEET NAVY CLOTHING REQUIREMENTS

PROTECTIVE CLOTHING & FOOTWEAR FOR HAZARDOUS ENVIRONMENTS

LIFE SUPPORT SYSTEMS DEVELOPMENT FOR PROTECTIVE CLOTHING

ENVIRONMENTAL PHYSIOLOGY RESEARCH AND EVALUATION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

HYDRO-ENVIRONMENT TEMPERATURE LAB. AIR CHAMBER-MARINE TANK REPRODUCES AIR-SEA TEMP CONDITIONS FOR WATER IMMERSION PHYSIOLOGY & BUOYANCY TESTS. ENVIRONMENTAL TEST CHAMBER FOR EVALUATING PROTECTIVE CLOTHING UNDER WORK STRESS & EXTREME TEMPERATURES.

INSTRUMENTED THERMAL MANIKIN FOR DETERMINING THERMAL INSULATION OF CLOTHING IN WET & DRY ENVIRONMENTS.

Thermal Flammability Apparatus for conducting flame resistance, heat resistance and thermal protection material testing.

Chemical & Physical Testing Equipment for conducting RDT&E on fabrics, yarns, fibers, leather, plastics, rubber, dyes, & finishes.

Sewing Machines & Pattern Drafting for developing garments.

INSTALLATION: COASTAL SYSTEMS CENTER

PANAMA CITY, FL

CO. CAPT. C. C. KING TECH DIR. MR. G. C. DILWORTH, JR.

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	65.007	83.166
TOTAL PROCUREMENT	12.306	21.810
TOTAL O&M	11.927	10.891
TOTAL OTHER	7.865	4.860
TOTAL ANNUAL LAB	97.105	119.727
TOTAL INHOUSE	61.347	75.565
TOTAL INHOUSE RDT&E	40.951	52.209
ANNUAL OPERATING COST	25.183	29.410

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	132	0	18	119
CIVILIAN	1076	41	581	545
TOTAL	1208	41	544	664

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
648	358.558	37.914	401.454	797.926	49.323	27.571

...MISSION

TO BE THE PRINCIPAL NAVY RDT&E CENTER FOR MINE AND UNDERSEA COUNTERMEASURES, SPECIAL WARFARE, AMPHIBIOUS WARFARE, DIVING AND OTHER NAVAL MISSIONS THAT TAKE PLACE PRIMARILY IN THE COASTAL REGIONS.

...CURRENT IMPORTANT PROGRAMS

MINE AND UNDERSEA COUNTERMEASURES

TORPEDO AND SONAR COUNTERMEASURES. SUBMARINE LAUNCHERS (CM UNIQUE)

SHIP/AIRBORNE MINE COUNTERMEASURES COMBAT SYSTEM INTEGRATION

DIVING, SALVAGE, AND SPECIAL WARFARE

AMPHIBIOUS WARFARE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES INCLUDE- OCEAN SIMULATION FAC TO 2250' DEPTH. HYDROSPACE LAB. SWIMMER/DIVER R&D FAC. GAS ANALYSIS LAB. SONAR RAIL FAC. MAGNETIC TARGET DETECTION & CLASSIFICATION RANGE. OPTICAL POSITIONING SYS. CALIBRATION AND STANDARDS FAC. MECHANICAL CALIBRATION LAB. ACOUSTIC TEST FAC.

TRANSDUCER LAB. PRECISION ACOUSTIC TANK. ACOUSTIC ANAL FAC. SYS DEV AND TEST FAC. LASER LAB. ELECTRONIC TRACKING RANGE. PORTABLE TRACKING & POST RUN ANALYSIS SYS. COUNTERMEASURES EVALUATOR IN REAL-TIME SIMULATION.

UNRUEIGHIS 6810 DIGITAL COMPUTER AND ASSOCIATED DATA COMMUNICATIONS SYS.

ENVIRONMENTAL MONITORING FAC. SONAR PROCESSING FAC. INTERACTIVE GRAPHICS SYS. PIER SPACE & BOATS TO INCLUDE RESEARCH VESSELS ATHENA I & II. MSO-443 USS FIDELITY. INDUSTRIAL SHOPS. HELIPORT COMPLEX WITH 2 RH53D & 2 CHIE, AND SOFTWARE ENG ENVIR/TACTICAL ENG AND COMPUTERS.

INSTALLATION: DAVID W. TAYLOR SHIP R&D CENTER

BETHESDA, MD

CO. CAPT G. R. GARRISON

TECH DIR. DR. A. POWELL

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	288.682	205.753
TOTAL PROCUREMENT	87.848	84.420
TOTAL O&M	47.814	51.064
TOTAL OTHER	18.217	18.248
TOTAL ANNUAL LAB	837.506	809.480
 TOTAL INHOUSE	 180.480	 159.789
TOTAL INHOUSE RDT&E	187.144	119.407
ANNUAL OPERATING COST	58.092	47.750

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL FHDS	TOTAL PROF	NON- PROF
MILITARY	75	2	27	48
CIVILIAN	2888	125	1885	1503
TOTAL	2963	127	1412	1551

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
823	1815.000	99.000	832.000	2246.000	75.019	95.118	

...MISSION

TO BE THE PRINCIPAL NAVY RESEARCH, DEVELOPMENT, TEST, AND EVALUATION (RDT&E) CENTER FOR NAVAL VEHICLES AND LOGISTICS AND TO PROVIDE RDT&E SUPPORT TO THE U.S. MARITIME ADMINISTRATION AND THE MARITIME INDUSTRY.

...CURRENT IMPORTANT PROGRAMS

SURFACE SHIP AND SUBMARINE SILENCING (ACOUSTIC/NON-ACOUSTIC/MACHINERY), SURFACE SHIP SURVIVABILITY & TOPSIDE STRUCTURES AND MACHINERY, PROPULSOR DEVELOPMENT (HYDRODYNAMICS/STRUCTURES/ACOUSTICS), SUBMARINE PRESSURE HULL AND NON-PRESSURE HULL (STRUCTURES/MATERIALS), AERODYNAMICS (JET-VANE YAW CONTROL/X-WING ROTOR SYSTEM/CIRCULATION CONTROL)

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FUNCTIONS/EQUIPMENT/CAPABILITIES: DEEP WATER ACOUSTIC FACILITY, SHALLOW DEEP WATER/HIGH SPEED TOWING BASINS, WIND AND WATER TUNNELS, ANECHOIC FLOW FACILITY, STRUCTURAL EVALUATION LAB, UNDERWATER EXPLOSIONS BARGE/TEST POND, PHYSICAL METALLURGY LAB, WELDING/FABRICATION LABS, MACHINERY DEVELOPMENT LAB, ENVIRONMENTAL PROTECTION LAB, DYNAMIC CONTROL SIMULATOR/COMPUTER, MANEUVERING AND SEAKEEPING/RADIO-CONTROLLED MODEL FACILITY, PRESSURE TANKS/DEEP OCEAN FACILITIES, HIGH SPEED RESEARCH VESSELS, PAINT LAB, FUELS LAB, SHOCK AND VIBRATION FACILITY, CENTRAL COMPUTER FACILITY, ELECTRIC PROPULSION TEST CRAFT, TURBO-ELECTRIC PROPULSION LAB, ACOUSTIC MEASUREMENT BARGE/ACOUSTIC DATA ANALYSIS CENTER, CARR INLET ACOUSTIC RANGE FACILITY, AND SANTA CRUZ ACOUSTIC RANGE FACILITY.

INSTALLATION: DENTAL RESEARCH INSTITUTE

NTC GREAT LAKES, IL

CO. CAPT G. E. CLARK

SCI DIR. DR. I. L. SHKLAIR

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	0.942	1.087
TOTAL PROCUREMENT	0.000	0.000
TOTAL Q&M	0.000	0.000
TOTAL OTHER	0.784	0.887
TOTAL ANNUAL LAB	1.726	1.974
 TOTAL INHOUSE	1.586	1.811
TOTAL INHOUSE RDT&E	0.802	0.924
ANNUAL OPERATING COST	0.410	0.480

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	29	10	13	16
CIVILIAN	15	4	15	0
TOTAL	44	14	28	16

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	21.264	6.001	9.318	36.583	0.000	0.102

...MISSION

TO CONDUCT RESEARCH DEVELOPMENT TEST AND EVALUATION IN DENTAL AND ALLIED SCIENCES WITH PARTICULAR EMPHASIS ON PROBLEMS OF DENTAL AND ORAL HEALTH IN NAVY AND MARINE CORPS POPULATIONS AND ON PROBLEMS OF FLEET AND FIELD DENTISTRY.

...CURRENT IMPORTANT PROGRAMS

THE PATHOGENESIS OF ORAL AND DENTAL DISEASES
 EVALUATION OF NEW METHODS AND MATERIALS TO ARREST ORAL DISEASES
 COMPUTER ASSISTED DIAGNOSIS AND TREATMENT OF DENTAL EMERGENCIES
 AUTOMATED APPLICATIONS IN NAVY DENTAL EPIDEMIOLOGY
 RAPID IDENTIFICATION OF DESTRUCTIVE PERIODONTAL DISEASE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AMINO ACID ANALYZER, ATOMIC ABSORPTION UNIT, LIQUID SCINTILATION COUNTER, MIN COMPUTER, GAS CHROMATOGRAPH UNIT, PHOTOMICROSCOPE, ELECTRON MICROSCOPE, CRYMICROTOME, DIAZO PROCESSOR, ANIMAL SURGERY ROOM, SPECTROPHOTOMETERS, THERMAL BALANCE, VIVARIUM, INCUBATORS, CENTRIFUGES, BIOLOGICAL SAFETY CABINET, FRACTIONATORS, SHAKERS, PHOTO LAB, OSCILLISCOPE, EQUIPMENT REPAIR, TISSUE CULTURE

INSTALLATION: ENVIRONMENTAL PREDICTION RESEARCH FACILITY MONTEREY, CA

CO. CDR M. G. SALINAS TECH DIR. DR J. HOVERMALE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	6.845	6.716
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.408	0.588
TOTAL OTHER	1.247	0.664
TOTAL ANNUAL LAB	8.500	7.918
 TOTAL INHOUSE	8.879	3.732
TOTAL INHOUSE RDT&E	2.904	2.922
ANNUAL OPERATING COST	0.971	1.269

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	15	0	6	9
CIVILIAN	39	12	44	5
TOTAL	54	12	50	14

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	2.106	15.578	5.588	23.272	0.000	2.307

...MISSION

CONDUCT RESEARCH & DEVELOPMENT DIRECTED TOWARD PROVIDING OBJECTIVE LOCAL REGIONAL AND GLOBAL ENVIRONMENTAL ANALYSIS AND PREDICTION TECHNIQUES PROVIDE PLANNING, MODELING & EVALUATION SERVICES TO DETERMINE THE EFFECT OF ENVIRONMENTAL ELEMENTS ON NAVAL WEAPONS SYSTEMS

...CURRENT IMPORTANT PROGRAMS

DEVELOP SYSTEM FOR PROCESS/DISPLAY OF ENVIRONMENTAL SATELLITE DATA
DEVELOP COMPUTER MODELS WHICH ANALYZE/ASSIMILATE ATMOSPHERIC DATA
DEVELOP TECHNIQUES PREDICT/DIAGNOSE ATOMS EFFECTS ON WEAPONS SYSTEMS
DEVELOP OBJECTIVE LOCAL/REGIONAL ATOMS ANALYSIS/PREDICTION TECHNIQUES
DEVELOP SYNOPTIC/SUBSYNOPTIC AND MESOSCALE ATOMS PREDICTION MODELS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CAPABILITY OF RECEIVING, ENHANCING AND ANALYZING REMOTEL SENSED ATOMS DATA
CAPABILITY OF BUILDING, ANALYZING AND MODIFYING GLOBAL, REGIONAL AND LOCAL WEATHER MODELS
CAPABILITY TO DEVELOP ATOMS PREDICTION AIDS FOR USE BY NON-GRADUATE METEOROLOGICAL PERSONNEL
ECLIPSE S250 COMPUTER ACCESS TO CYBER 203 AND 175 COMPUTERS

INSTALLATION: EXPLOSIVE ORDNANCE DISPOSAL TECH CEN

INDIAN HEAD, MD

CO. CAPT R. L. MASTEN TECH DIR. MR. L. A. DICKINSON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	19.827	22.960
TOTAL PROCUREMENT	14.695	21.553
TOTAL O&M	8.100	4.863
TOTAL OTHER	0.800	4.270
TOTAL ANNUAL LAB	37.922	58.646
 TOTAL INHOUSE	 27.660	 16.109
TOTAL INHOUSE RDT&E	10.173	6.110
ANNUAL OPERATING COST	8.857	6.821

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	70	0	18	57
CIVILIAN	206	1	68	143
TOTAL	276	1	76	200

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1172	71.578	22.176	90.643	184.397	5.987	5.201

...MISSION

CONDUCT RESEARCH DEVELOPMENT TEST AND EVALUATION CONCERNING BOTH THE DISPOSAL AND RENDERING SAFE PROCEDURES FOR CONVENTIONAL AND SPECIAL WEAPONS, GUIDED MISSILES, UNDERWATER WEAPONS, EXPLOSIVES, BIO AND CHEM MUNITIONS, BOTH U.S. AND FOREIGN. PLUS THE REQUIRED TOOLS AND EQUIPMENT.

...CURRENT IMPORTANT PROGRAMS

DEVELOPMENT OF RENDER SAFE AND DISPOSAL TOOLS FOR CONVENTIONAL MUNITIONS
 DEVELOPMENT OF SPECIAL OPERATIONS SPECIAL TECHNOLOGY
 TERRORIST DEVICE COUNTERMEASURES
 IMPROVISED NUCLEAR DEVICE COUNTERMEASURES
 EXPLOSIVE RANGE CLEARANCE TECHNIQUES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DEVELOP EXPLOSIVE ORDNANCE DISPOSAL (EOD) PROCEDURE, PREPARE AND PUBLISH EOD PUBLICATIONS FOR JOINT-SERVICE USE. CONDUCT EXP. AND ADV. DEVELOPMENT LEADING TO SPECIALIZED TOOLS AND EQUIP. NEEDED TO LOCATE, IDENTIFY, RECOVER, RENDER-SAFE AND DISPOSE OF ALL TYPES OF EXPLOSIVE ORDNANCE. PREPARE AND MAINTAIN DOCUMENTATION FOR EOD TOOLS AND EQUIP. CONDUCT FIRST ARTICLE INSPECTION ON EOD TOOLS BEING PRODUCED FOR ALL SERVICES. CONDUCT INITIAL EVALUATION OF FOREIGN EXPLOSIVE ORDNANCE. CONDUCT EXP. ENGR DEVELOPMENT LEADING TO ACCESS AND DISARABLEMENT COUNTERMEASURES AGAINST IMPROVISED NUCLEAR DEVICES. CAPABILITY OF TESTING EOD TOOLS TO A DEPTH OF 400 FT IN A DIVING CHAMBER. CAPABILITY OF ANALYZING HIGH SPEED EVENTS WITH FLASH X-RAYS AND PHOTOS.

INSTALLATION: HEALTH RESEARCH CENTER

SAN DIEGO, CA

CO. CAPT M. F. FORNES

CH SCI. DR. L. C. JOHNSON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	3.516	4.369
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.889	1.025
TOTAL ANNUAL LAB	4.405	5.394
 TOTAL INHOUSE	8.293	4.015
TOTAL INHOUSE RDT&E	2.404	2.990
ANNUAL OPERATING COST	0.980	1.101

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL	NON- PROF
			PROF	
MILITARY	30	6	22	8
CIVILIAN	61	11	28	88
TOTAL	91	17	45	46

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
1	19.052	7.159	0.000	26.211	0.147	1.734	

...MISSION

TO SUPPORT FLEET OPERATIONAL READINESS THROUGH RESEARCH, DEVELOPMENT, TEST, AND EVALUATION OF BIOMEDICAL AND PSYCHOLOGICAL ASPECTS OF NAVY AND MARINE CORPS PERSONNEL HEALTH AND PERFORMANCE.

...CURRENT IMPORTANT PROGRAMS

EVAL OF HEALTH RISKS FOR NAVY OCCUPATIONS. NEUROMETRIC SELECTION OF SONAR OPERATORS. HUMAN PERF EFFECTIVENESS/PHYSIO ADAPTATION DURING SUSTAINED OPERATIONS. DEVEL STANDARDS FOR OBESITY & PHYSICAL FITNESS OF NAVY PERS. DEVEL, TEST, COMPUTERIZED OP MED INFO SYSTEMS. CHEM DEF MEASURES ON SUSTAINED PERFORMANCE. PSYCHOPHARMACOLOGICAL TECHNIQUES TO ENHANCE PERF.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ELECTROENCEPH MONITORING OF SLEEP PATTERNS
 CARDIOVASCULAR STRESS LAB
 MUSCLE STRENGTH TESTING LAB
 COMPUTER STORAGE TOTAL USN/USMC HEALTH DATA
 MEDICAL INFORMATION SYSTEMS
 VAX/VMS

INSTALLATION: MEDICAL RESEARCH INSTITUTE

BETHESDA, MD

CO. CAPT R. L. SPHAR

SCI DIR. DR. L. A. KIESOW

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	20.289	20.784
TOTAL PROCUREMENT	0.000	0.000
TOTAL Q&M	0.001	0.000
TOTAL OTHER	9.016	9.650
TOTAL ANNUAL LAB	29.256	30.434
 TOTAL INHOUSE	27.126	27.878
TOTAL INHOUSE RDT&E	18.109	18.228
ANNUAL OPERATING COST	9.587	9.460

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		TOTAL		NON- PROF
		PHDS	PROF	TOTAL	REAL PROP	
MILITARY	255	54	108	108	83	152
CIVILIAN	188	39	114	114	80	74
TOTAL	443	93	217	217	163	226

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
4	159.983	11.720	47.210	218.893	8.303	16.680

...MISSION

CONDUCT BASIC & APPLIED RESEARCH & DEVELOPMENT CONCERNED
 WITH THE HEALTH SAFETY & EFFICIENCY OF NAVY AND MARINE CORPS
 PERSONNEL

...CURRENT IMPORTANT PROGRAMS

COMBAT CARE TECHNOLOGY, WOUND HEALING, SHOCK TISSUE TRANSPLANTATION
 MICROBIOLOGY VACCINE DEV, RAPID DIAGNOSIS EPIDEMIOLOGY
 HYPERBARIC MEDICINE, PHYSIOLOGY TREATMENT SAFETY
 ENVIRONMENTAL STRESS, THERMAL, CHEMICAL, TOXIC
 BONE MARROW TRANSPLANTATION, STEM CELLS GROWTH FACTORS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

HYPERBARIC RESEARCH FACILITY WITH MAN-RATED HYPERBARIC CHAMBERS
 HUMAN PHYSIOLOGICAL & HEAT STRESS EQUIPMENT & FACILITIES
 HUMAN TISSUE PRESERVATION & STORAGE EQUIPMENT & FACILITIES
 BIOHAZARDOUS MATERIALS HANDLING LAB EQUIPMENT & FACILITIES
 TOXICOLOGY EVALUATION EQUIP & FACILITIES INCLUDE HYPERBARIC CHAMBERS
 TRANSMISSION & SCANNING ELECTRON MICROSCOPES FLOURESCENT ANTIBODY CELL
 SORTER & COMPUTERS
 EXPERIMENTAL ANIMAL FACILITIES, ANIMAL HOUSE & OPERATING ROOMS
 LAB EQUIPMENT & FACILITIES FOR BASIC & APPLIED BIOCHEMICAL
 MICROBIOLOGICAL & PSYCHOLOGICAL & TRANSPLANTATION STUDIES

INSTALLATION: MEDICAL RESEARCH UNIT NO. 2

MANILA, PHILIPPINES

CO. CAPT L. W. LAUGHLIN ACT. SCI. DIR. DR. C. G. HAYES

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	2.694	8.127
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.989	0.989
TOTAL ANNUAL LAB	3.683	4.116
 TOTAL INHOUSE	 3.683	 4.116
TOTAL INHOUSE RDT&E	2.694	8.127
ANNUAL OPERATING COST	0.805	0.982

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON-
				PROF
MILITARY	25	9	24	1
CIVILIAN	48	4	44	4
TOTAL	73	13	68	5

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	15.439	6.654	2.400	24.493	0.000	0.371

...MISSION

TO CONDUCT RESEARCH ON, AND DEVELOP MEANS FOR DIAGNOSIS AND TREATMENT OF INFECTIOUS DISEASES OF MILITARY IMPORTANCE THAT ARE ENDEMIC IN THE ASSIGNED GEOGRAPHICAL AREA. TO PERFORM OTHER SUCH TASKS AS DIRECTED BY COMMANDER, NAVMEDCOM, AND CO. NMRDC.

...CURRENT IMPORTANT PROGRAMS

CONDUCT RESEARCH ON TROPICAL COMMUNICABLE DISEASES, INCLUDING MALARIA AMEBIASIS, PARASITIC DISEASES, ARTHROPOD VECTOR DISEASES AND DIARRHEA. EMPHASIS IS ON DIAGNOSIS, PREVENTION AND TREATMENT OF ENCEPHI, TROPICAL INFECTIOUS DISEASES AND THEIR GEOGRAPHIC EPIDMILOGY. TEST AND EVALUATE METHODS OF IMPROVED RAPID DIAGNOSES OF INFECTIOUS DISEASES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FULLY EQUIPPED AND FUNCTIONAL VIROLOGY, MICROBIOLOGY, PARASITOLOGY, ENTOMOLOGY, AND CLINICAL LABORATORIES IN BOTH MANILA, RP AND JAKARTA, INDONESIA. DETACHMENT HAS AN ESTABLISHED ANIMAL FACILITY. NAMRU-2 MANILA HAS THE PREMIER INSECTARY IN THE PHILIPPINES. WANG VS ADP SYSTEM FOR BIOSTATISTICAL APPLICATIONS. DETACHMENT IS ESTABLISHING A STATE OF THE ART INTENSIVE CARE UNIT FOR USE IN THEIR STUDIES.

INSTALLATION: MEDICAL RESEARCH UNIT NO.8

CAIRO, EGYPT

CO. CAPT JAMES F. MOODY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	4.466	4.480
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.218	0.185
TOTAL OTHER	0.886	0.886
TOTAL ANNUAL LAB	5.565	5.551
 TOTAL INHOUSE	 5.565	 5.551
TOTAL INHOUSE RDT&E	4.466	4.480
ANNUAL OPERATING COST	0.980	1.005

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	28	12	14	14
CIVILIAN	205	18	66	139
TOTAL	233	30	80	153

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5	89.472	8.962	61.072	159.506	9.054	1.184

...MISSION

TO CONDUCT RDT&E RELATING TO THE HEALTH SAFETY AND READINESS OF NAVAL PERSONNEL ASSIGNED TO S.W.ASIA AND AFRICA AND TO PERFORM SUCH OTHER FUNCTIONS AS MAY BE DIRECTED BY HIGHER AUTHORITY.

...CURRENT IMPORTANT PROGRAMS

EPIDEM. AND PREV. OF MIL.RELEVANT INFECT.DISEASES IN S.W.ASIA AND AFRICA.
THERAPY OF INFECT. DISEASE IN S.W.ASIA AND AFRICA
RAPID & EARLY DIAG.OF INFECT.DISEASES OF MIL.IMPORT.IN S.W.ASIA AND AFRICA.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

A STATE OF THE ART MEDICAL RESEARCH LABORATORY WITH ANIMAL FACILITIES AND A 40-BED WARD. CAPABILITIES IN ADVANCED TECHNIQUES, SEROLOGY, HYBRIDOMA TECH. AND HYBRIDIZATION OF DNA ALONG WITH PRODUCTION OF DNA PROBES, AMINO ACID ANALYSIS, FLUORESCENT MICROSCOPY AND COMPUTER LINKED ELISA READER, CYTOFLUOROGRAPH, HIGH PRESSURE LIQUID CHROMATOGRAPHY, GAS LIQUID CHROMATOGRAPHY, SPECTRO PHOTOMETER, BETA-SCINTILLATION COUNTER, GAMMA-COUNTER, GAMMA CELL 40.CENTRIFUGES, ULTRACENTRIFUGES AND CRYOPRESERVATION. HAZARDOUS MATERIAL LABORATORY, WITH A CONTAINMENT CAPABILITY UP TO P-8 LEVEL.

INSTALLATION: OCEAN RESR & DEV ACT

BAY ST LOUIS, MS

CO. CAPT R. P. ONORATI

TECH DIR. DR. J. E. ANDREWS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	39.809	47.108
TOTAL PROCUREMENT	0.100	0.147
TOTAL O&M	1.448	2.124
TOTAL OTHER	1.520	2.001
TOTAL ANNUAL LAB	42.877	51.375
 TOTAL INHOUSE	30.767	36.858
TOTAL INHOUSE RDT&E	27.785	32.683
ANNUAL OPERATING COST	9.319	10.181

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	17	0	13	4
CIVILIAN	819	70	205	114
TOTAL	836	70	218	118

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
5	92.647	35.342	76.817	204.806	17.203	16.927	

...MISSION

TO CARRY OUT A BROAD BASED RDT&E PROGRAM IN OCEAN SCIENCE & TECHNOLOGY WITH EMPHASIS ON UNDERSTANDING OCEAN PROCESSES THRU MEASUREMENT AND ANALYSIS, AND THE EFFECTS OF THIS OCEAN ENVIRONMENT ON NAVY SYSTEMS AND OPERATIONS.

...CURRENT IMPORTANT PROGRAMS

OCEAN ACOUSTICS, OCEAN FORECASTING, REMOTE SENSING OCENAOGRAPHY, AND ARCTIC PROGRAM.

REMOTE SENSING OCEANOGRAPHY & OCENAN MODELING TO SUPPORT OCEAN FORECAST-ING. ACOUSTIC BOUNDARY INTERACTION TO SUPPORT SURV & WPN SYS DEV/PERF. PATTERN ANALYSIS & SENSOR DEVELOPMENT.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

HAVE MASS SPECTROMETER, GAS CHROMATOGRAPH SYS, TOWED UNDERWATER PUMPING SYS, DTACS, ACOUSTIC SEDIMENT CLASSIFIER, SEDIMENT CHARACT. PROBES, SIDE SCAN SONAR SYS, SECURE/UNCLAS ACOUSTIC DATA PRO, ARRAY DESIGN/TEST/FAB, MICROPROCESSOR DESIGN/DEV, ACOUSTIC DATA BASES, OCEAN ACOUSTICS MOBILE UNDERWATER TEST BED, ENV ACOUSTIC LAB, WAVE CURRENT SIMULATOR, SCANNING AND TRANSMISSION ELECTRON MICROSCOPES, OCEAN BOTTOM SEISMOMETERS, GEOTECH LAB, X-RAY FLUORESCENT FACILITY, PATTERN ANALYSIS LAB, AND MAGNETIC OBSERVATORY.

INSTALLATION: OCEAN SYSTEMS CENTER

SAN DIEGO, CA.

CO. CAPT F. M. PESTORIUS

TECH DIR. MR R. M. HILLYER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	803.984	840.800
TOTAL PROCUREMENT	71.195	75.800
TOTAL O&M	99.310	101.900
TOTAL OTHER	88.411	87.840
TOTAL ANNUAL LAB	512.900	555.840
 TOTAL INHOUSE	285.799	250.895
TOTAL INHOUSE RDT&E	147.576	162.195
ANNUAL OPERATING COST	71.104	77.090

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	281	1	55	226
CIVILIAN	2948	196	1541	1407
TOTAL	3229	197	1596	1633

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIF
2719	1290.967	198.370	192.920	1682.257	56.087	62.956

...MISSION

TO BE THE PRINCIPAL NAVY RESEARCH, DEVELOPMENT, TEST AND EVALUATION CENTER FOR COMMAND CONTROL, COMMUNICATIONS, OCEAN SURVEILLANCE, SURFACE- AND AIR-LAUNCHED UNDERSEA WEAPONS SYSTEMS, AND SUBMARINE ARCTIC WARFARE.

...CURRENT IMPORTANT PROGRAMS

OCEAN SURVEILLANCE SYS WITH SOSUS UPDATE AND MULTI-SENSOR INTEGRATION, COMMAND CONTROL AND COMMUNICATIONS SYS ARCHITECTURE AND ENGINEERING, ADVANCED SURFACE AND AIR LAUNCHED UNDERSEA WEAPONS AND SURFACE ASW SYS, TECHNOLOGY DEVELOPMENTS SUCH AS DV MARINE BIO SYS, ARCTIC SUB OPS, OCEAN ENGINEERING, ELECTRONIC WARFARE AND ARTIFICIAL INTELLIGENCE.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ARCTIC RESEARCH FACILITY; C3 SITE, INCL TACTICAL FLAG COMMAND CENTER (TFCC), ADVANCED COMMAND CONTROL ARCHITECTURE TEST BED ('CCAT), ADVANCED COMBAT DIRECTION SYSTEM (ACDS) DEVELOPMENT SITE, AND INTEGRATED BATTLE GROUP TACTICAL TRAINER (IBGTT); OCEAN SURVEILLANCE FACILITY; ACOUSTIC RESEARCH CENTER (ARC) WITH SATELLITE DATA LINKS; INTEGRATED UNDERSEA SURVEILLANCE SYS (IUS) FACILITY; MICROWAVE AND MILLIMETER WAVE ANTENNA PATTERN RANGE COMPLEX; OCEANOGRAPHIC RESEARCH TOWER; STABLE SEMI-SUBMERGED PLATFORM; USS DOLPHIN, EXPERIMENTAL SUB; TRANSDUCER EVALUATION CENTER; MICRO-ELECTRONICS LAB COMPLEX; SIMULATION AND REAL-TIME COMPUTER FACILITIES FOR DEVELOPMENT OF OCEAN SURVEILLANCE AND ASW SYSTEMS; SHIP MOTION SIMULATOR; BIO-SCIENCE FACILITY ENGAGED IN RESEARCH, TRAINING, AND HANDLING OF MARINE MAMMALS.

INSTALLATION: OFFICE OF NAVAL RESEARCH

ARLINGTON, VIRGINIA

CC. RADM J.B. MOONEY, JR. TECH DIR. DR. M.K. MOSS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	631.868	720.685
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	138.517	140.548
TOTAL OTHER	4.294	4.466
TOTAL ANNUAL LAB	774.674	865.699
 TOTAL INHOUSE	30.882	36.725
TOTAL INHOUSE RDT&E	28.672	34.479
ANNUAL OPERATING COST	21.350	25.991

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	41	6	40	1
CIVILIAN	471	77	114	357
TOTAL	512	83	154	358

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	0.080	89.022	12.08E	101.187	0.000	6.400

...MISSION

RESPONSIBLE FOR LEADERSHIP OF NAVY RESEARCH PROGRAM MANAGEMENT AND DIRECTION OF DDC CONDUCTED RDI&E AND OF THE NAVY-WIDE PATENT PROGRAM, DEVELOPMENT OF NAVY-WIDE RDT&E FOR ASN(RES), WORLD-WIDE RESEARCH INFO AND CONTRACT MGMT OF FEDERALLY FUNDED UNIVERSITY RESEARCH

...CURRENT IMPORTANT PROGRAMS

CONTRACT RESEARCH AND TECHNOLOGY PROGRAMS

NAVY PATENT PROGRAM

NAVY-WIDE RDT&E APPROPRIATION ADMINISTRATION

FOCAL POINT FOR WORLD-WIDE RESEARCH INFORMATION

CONTRACT MANAGEMENT PROGRAM AT EDUCATIONAL INSTITUTIONS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ADMINISTRATION OF RESEARCH PROGRAMS IN PHYSICAL SCIENCES, MATHEMATICAL AND INFORMATION SCIENCES, BIOLOGICAL SCIENCES, PSYCHOLOGICAL SCIENCES, ARCTIC AND EARTH SCIENCES, MATERIAL SCIENCES, OCEAN SCIENCE AND TECHNOLOGY

ADMINISTRATION OF TECHNOLOGY PROGRAMS IN NAVAL VEHICLE AND WEAPONS

TECHNOLOGY, SENSOR AND CONTROL TECHNOLOGY, ANALYSIS AND SUPPORT. FIELD

ACTIVITIES INCLUDE NRL, NORDA, NEL, NEPRF, RDT&E NAVY LABS, SPRDC.

MAINTAINS RESEARCH RESERVE PROGRAM. COORDINATES NAVAL RESEARCH AND

PROMOTES COOPERATIVE RESEARCH EFFORTS WITHIN NAVY, OTHER DOD, NSF, NASA,

DEPT OF ENERGY AND OTHER GOVERNMENT RESEARCH GROUPS. SUPPORT AND

ADMINISTRATION OF NAVAL RESEARCH ADVISORY COMMITTEE

INSTALLATION: ORDNANCE MISSILE TEST STATION

WHITE SANDS, NM

CO. CAPT A. F. SCHROEDER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	9.705	13.148
TOTAL PROCUREMENT	2.188	2.770
TOTAL O&M	0.369	0.010
TOTAL OTHER	2.607	3.484
TOTAL ANNUAL LAB	14.814	19.362
 TOTAL INHOUSE	4.264	5.748
TOTAL INHOUSE RDT&E	2.911	3.888
ANNUAL OPERATING COST	2.442	2.840

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	89	0	12	77
CIVILIAN	60	0	6	54
TOTAL	149	0	18	131

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
95	10.324	89.798	166.886	217.008	6.213	4.072	

...MISSION

CONDUCT AND SUPPORT ASSIGNED NAVY GUIDED MISSILE, ROCKET, GUN AND DIRECTED ENERGY PROGRAMS, INCLUDING GROUND AND FLIGHT TESTING; TO PARTICIPATE IN THE OPERATION OF THE DOD MISSILE TEST RANGE AT WHITE SANDS; AND TO PERFORM ADDITIONAL TASKS AS DIRECTED BY COMNAVSEASYSOM.

...CURRENT IMPORTANT PROGRAMS

STANDARD MISSILE 1 AND 2/AEGIS FLIGHT TESTING

CRUISE MISSILE FLIGHT TESTING

RAM FLIGHT TESTING

HIGH ENERGY LASER TESTING

UPPER ATMOSPHERE RESEARCH ROCKET LAUNCHING

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FLIGHT TEST TERRIER, TARTAR, STANDARD, SAM GUIDED MISSILES AND PROJECTILES

LAUNCH VARIOUS SOUNDING ROCKETS FOR UPPER ATMOSPHERIC STUDY

INTEGRATE THE MIRACL LASER WITH THE BEAM DIRECTOR, DO SYSTEM TESTING

LAUNCH VARIOUS ROCKETS IN SUPPORT OF NASA PROJECTS

LAUNCH VARIOUS ROCKETS IN SUPPORT OF AIR FORCE PROJECTS

CONDUCT VARIOUS DEVELOPMENT TESTS FOR SSM AND SAM PROJECTS

PROVIDE DRONE SUPPORT AND VANDAL MISSILE HIGH SPEED TARGETS

ASSIST IN OPEVAL OF CRUISE MISSILE

5-INCH GUIDED PROJECTILE LAUNCH CAPABILITY

PROVIDE WARHEAD AND EOD ANALYSIS ARENA

INSTALLATION: PACIFIC MISSILE TEST CENTER

POINT MUGU, CA

CO. RADM J. R. WILSON JR. TECH DIR. MR. W. R. HATTABAUGH

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	274.089	284.850
TOTAL PROCUREMENT	220.585	217.233
TOTAL O&M	150.157	122.863
TOTAL OTHER	103.204	105.132
TOTAL ANNUAL LAB	747.985	729.578
TOTAL INHOUSE	407.527	405.586
TOTAL INHOUSE RDT&E	191.828	199.044
ANNUAL OPERATING COST	76.547	80.589

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	1077	12	405	672
CIVILIAN	4138	18	1115	3018
TOTAL	5210	30	1520	3690

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
27088	1287.000	847.500	8665.400	5299.900	187.100	195.134	

...MISSION

PERFORM DEVELOPMENT TEST AND EVALUATION DEVELOPMENT SUPPORT, AND FOLLOW-ON ENGINEERING, LOGISTIC, AND TRAINING SUPPORT FOR NAVAL WEAPONS WEAPONS SYSTEMS, AND RELATED DEVICES, AND PROVIDE MAJOR RANGE, TECHNICAL AND BASE SUPPORT FOR NAVY RDT&E, FLEET, AND OTHER DOD AND GOVT USERS.

...CURRENT IMPORTANT PROGRAMS

AIR AND SURFACE LAUNCHED CRUISE MISSILE & STRATEGIC SYSTEMS, DEVELOPMENT SUPT, T&E & ISE ON AIR LAUNCHED GUIDED WEAPONS AND CONVENTIONAL CORDANCE. EW SYS READINESS & MISSION PERFORMANCE. EWSSA, SUPT EQUIP DEVELOPMENT. TARGETS DEVELOPMENT AND LIFE CYCLE TARGETS MANAGEMENT. RANGE SYSTEMS DEVELOPMENT. FLEET READINESS SPT. MOBILE SEA RANGE.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

LABORATORIES FOR AIRBORNE WEAPONS SYSTEMS INTEGRATION, TEST, AND EVALUATION INCLUDING SOFTWARE SUPPORT AND ELECTRONIC WARFARE SYSTEMS. LABS INCLUDE HARDWARE-IN-THE-LOOP SIMULATION, ENVIRONMENTAL TEST/RELIABILITY GROWTH, ANECHOIC MEASUREMENTS, AND ALL UP ROUND TEST. A 82000 SQ MI SEA TEST RANGE PROVIDES FOR FLIGHT TEST OF AIRCRAFT AND MISSILE SYSTEMS. RANGE INSTRUMENTATION INCLUDES C-BAND RADARS, LAND S-BAND TELEMETRY, DATA TRANSMISSION, DISPLAY, AND REDUCTION, AIR AND SEA TARGETS WITH VARIOUS AUGMENTATION, COMMAND CONTROL/FLIGHT TERMINATION, LAUNCH AND RECOVERY, AND COMMUNICATIONS. A 800 SQ MI UNDERWATER RANGE AT BARKING SANDS, HAWAII, PROVIDES FLEET TRAINING SUPPORT IN AIR, SURFACE, AND ASW WARFARE. PMTC AIRCRAFT PROVIDE EXTENSIVE DATA COVERAGE TO TRIDENT PACIFIC TEST AND TOMAHAWK INLAND FLIGHTS FROM PMTC TO THE UTAH TEST RANGE.

INSTALLATION: PERSONNEL RESEARCH & DEVELOPMENT CTR SAN DIEGO, CA

CO. CAPT H. S. ELDREDGE TECH DIR. DR. J. W. TWEEDDALE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	19.868	24.081
TOTAL PROCUREMENT	1.800	0.495
TOTAL Q&M	18.405	8.279
TOTAL OTHER	8.228	2.442
TOTAL ANNUAL LAB	87.791	85.247
 TOTAL INHOUSE	21.551	21.097
TOTAL INHOUSE RDT&E	18.116	14.389
ANNUAL OPERATING COST	5.849	6.435

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	27	1	14	13
CIVILIAN	829	103	236	98
TOTAL	856	104	250	106

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
8	65.792	18.417	0.000	84.209	6.700	10.890

...MISSION

PRINCIPAL NAVY RDT&E CENTER FOR MANPOWER, PERSONNEL, EDUCATION, TRAINING AND HUMAN FACTORS AND FOR PROVIDING TECHNICAL SUPPORT TO THE CHIEF OF NAVAL OPERATIONS IN THESE AREAS. IBM 4841 COMPUTER SYSTEM WITH COMMUNICATIONS CAPABILITY TO OTHER COMPUTERS, VAX11/780 WITH ARPANET

...CURRENT IMPORTANT PROGRAMS

MANPOWER MANAGEMENT

EDUCATION AND TRAINING

PERSONNEL ADMINISTRATION

ORGANIZATIONAL MANAGEMENT

HUMAN PERFORMANCE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ACCESS WHICH SUPPORTS THE NAVY LABORATORY COMPUTER NETWORK, PDP 11/45 BIOTECHNOLOGY DATA ACQUISITION SYSTEMS, VARIOUS CRT AND PRINTING DEVICES INTERFACING WITH THE NAVAL OCEAN SYSTEMS CENTER UNIVAC 1100/2 COMPUTER.

INSTALLATION: RESEARCH LABORATORY

WASHINGTON, DC

CO. CAPT J. P. O'DONOVAN DIR OF RSCH DR. T. COFFEY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	840.782	297.724
TOTAL PROCUREMENT	9.863	8.595
TOTAL O&M	14.991	18.064
TOTAL OTHER	84.112	29.966
TOTAL ANNUAL LAB	899.698	849.849
 TOTAL INHOUSE	212.729	189.828
TOTAL INHOUSE RDT&E	174.726	156.204
ANNUAL OPERATING COST	84.807	85.217

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	91	2	34	57
CIVILIAN	3279	701	1584	1695
TOTAL	8870	703	1618	1752

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1072	2352.238	192.677	466.809	466.809	3011.724	101.754	152.075

...MISSION

TO CONDUCT A BROADLY BASED MULTIDISCIPLINARY PROGRAM OF SCIENTIFIC RESEARCH AND ADVANCED TECHNOLOGICAL DEVELOPMENT DIRECTED TOWARD NEW AND IMPROVED MATERIALS, EQUIPMENT, TECHNIQUES, SYSTEMS, AND RELATED OPERATIONAL PROCEDURES FOR THE NAVY.

...CURRENT IMPORTANT PROGRAMS

ADVANCED ECM AND DECOYS FOR NAVY EW SYSTEMS
 ADVANCED ACOUSTIC AND NON-ACOUSTIC SUBMARINE DETECTION PROGRAMS
 SATELLITE PROGRAMS
 LOW OBSERVABLES TECHNOLOGY
 DIRECTED ENERGY DEVICES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CORPORATE RESEARCH LABORATORY OF THE NAVY. PRIMARY AREAS ARE MATERIALS SCIENCE AND TECHNOLOGY, SPACE SCIENCE AND TECHNOLOGY, RADAR, ELECTRONIC WARFARE, LASER TECHNOLOGY, OPTICS, OPTICAL WARFARE, ELECTRONIC DEVICES, PLASMA AND RADIATION PHYSICS, INTELLIGENCE SUPPORT, UNDERSEA SURVEILANCE, LOW OBSERVABLES TECHNOLOGY. MAJOR FACILITIES INCLUDE ACOUSTIC STANDARD AND CALIBRATION FACILITIES, BIOMOLECULAR ENGINEERING FACILITY, HIGH LEVEL RADIATION LABORATORY, ENCLOSED 11,500 CUBIC FOOT FIRE TEST FACILITY, DIVERSE HIGH ENERGY LASERS, 200 KILOGAUSS HIGH FIELD MAGNET FACILITY, SPACE SIMULATION FACILITIES, MAJOR PLASMA PHYSICS FACILITIES, ELECTRONIC WARFARE CENTRAL TARGET SIMULATOR, CLASS VI COMPUTER, AND FOUR ORION AIRCRAFT FOR RESEARCH SUPPORT.

INSTALLATION: SUBMARINE MEDICAL RESEARCH LABORATORY

GROTON, CT

CO. CAPT C. A. HARVEY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	2.279	8.068
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.057	0.062
TOTAL OTHER	1.142	1.181
TOTAL ANNUAL LAB	8.478	4.261
 TOTAL INHOUSE	8.298	4.092
TOTAL INHOUSE RDT&E	2.279	8.068
ANNUAL OPERATING COST	0.999	1.008

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	84	8	12	22
CIVILIAN	55	14	28	27
TOTAL	89	22	40	49

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
1	40.514	14.099	0.000	54.613	1.815	2.485	

...MISSION

TO CONDUCT MEDICAL RESEARCH AND DEVELOPMENT AS IT RELATES TO SUBMARINE SHIPBOARD, DIVING AND AMPHIBIOUS ENVIRONMENTS.

...CURRENT IMPORTANT PROGRAMS

COMPUTER ASSISTED DIAGNOSIS PROGRAMS FOR CORPSMEN ABOARD NUCLEAR SUBS
AUDITORY AND VISUAL T AND E OF SUBMARINES AND DIVERS PHYSIOLOGICAL PSY-
CHOLOGICAL RESEARCH IN COLD WEATHER. HUMAN FACTORS VISION AUDITORY RSCH
HEALTH AND LONGEVITY OF NUCLEAR SUBMARINE CREWS.
NUCLEAR SUBMARINE ATMOSPHERE EVALUATION.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

BASIC AND APPLIED RESEARCH COMPETENCE IN CARDIOPULMONARY, THERMAL, AND
HYPERBARIC PHYSIOLOGY, BIOCHEMISTRY, AUDITORY, VISION, HUMAN FACTORS ENG,
HYPERBARIC AND MECHANICAL SERVICES, ELECTRICAL INSTRUMENTATION AND
REPAIRS, COMPUTER APPLICATIONS, ANIMAL SCIENCES, TECHNICAL LIBRARY,
HYPERBARIC CHAMBER, HUMAN 150 PSI,
ANIMAL 300 PSI AND 1000 PSI SURGICAL SUITE COMPUTER APPLICATIONS
FACILITY, CLOSED CIRCUITRY SYSTEM, GAS CHROMATOGRAPHS, EEG, DOPPLER
SYSTEM, SONAR, STACK SIMULATION TEST SYSTEM, FLUIDIC CONTROL CONSOLE,
RESPIRATORY MASS SPECTROMETER.

INSTALLATION: SURFACE WEAPONS CENTER

DAHLGREN, VIRGINIA

CO. CAPT J. R. WILLIAMS TECH DIR. DR. L. L. HILL

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	309.901	341.667
TOTAL PROCUREMENT	142.186	169.509
TOTAL O&M	57.449	76.286
TOTAL OTHER	32.709	56.440
TOTAL ANNUAL LAB	542.195	643.902
 TOTAL INHOUSE	207.699	230.084
TOTAL INHOUSE RDT&E	123.474	131.062
ANNUAL OPERATING COST	142.857	121.884

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	106	0	86	70
CIVILIAN	5345	243	2488	2907
TOTAL	5451	243	2474	2977

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5083	1657.760	169.159	1111.809	2938.228	108.600	195.236

...MISSION

THE PRINCIPAL NAVY RESEARCH, DEVELOPMENT, TEST AND EVALUATION CENTER FOR SURFACE SHIP WEAPONS SYSTEMS, ORDNANCE, MINES AND STRATEGIC SYSTEMS SUPPORT.

...CURRENT IMPORTANT PROGRAMS

STRATEGIC SYSTEMS-TRIDENT, POSEIDON, MK500, MISSILE MATERIELS, TARGETING, COMBAT SYSTEMS-AEGIS, DDG-51, CV/CVN, CG-47, DDG-993, DD-963, WEAPON SYSTEMS-TOMAHAWK, SM-2, GUIDED PROJECTILE, HI POWER RADIATION. UNDERWATER SYSTEMS-CAPTOR, QUICKSTRIKE, MINES, MK-50 TORPEDO, WARHEADS. ELECTRONIC SYSTEMS-SLQ-32, SLQ-17, AN/SPY-1, NUCLEAR WEAPONS EFFECTS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES INCLUDE WIND TUNNELS UP TO MACH 18, 1.75 MILLION GALLON HYDROBALLISTIC TANK, MAGNETIC SILENCING FACILITY, FBM DISPAC PRODUCTION FACILITY. FACILITIES FOR ASSURANCE OF COMPUTER PROGRAMS FOR STRATEGIC AND TACTICAL MISSILES, INTELLIGENCE PROCESSING SYSTEMS, GUN AND MISSILE RANGE INCLUDING LAND-BASED DEVELOPMENT SITES FOR WEAPON CONTROL SYSTEMS. ELECTROMAGNETIC EFFECTS FACILITIES FOR NUCLEAR AND NON-NUCLEAR EFFECTS. FACILITIES FOR WARHEAD CHARACTERIZATION AND DAMAGE TO TARGETS. DEVELOPMENT AND TEST FACILITIES FOR LASER AND ELECTRO-OPTICS SUBSYSTEMS, DEEP WATER OFFSHORE FACILITIES FOR MINE SYS, MOBILE TACTICAL WARGAMES FAC, EXPLOSIVES DEV FACILITIES, EXTENSIVE SCIENTIFIC COMPUTER FACILITY. FUZE, EXPLOSIVE MATERIALS AND MARINE CORPS SUPPORT FACILITIES, CHEMISTRY, PLASTICS AND METALLURGY LABS.

INSTALLATION: UNDERSEA RANGES DEPARTMENT

NEWPORT, RI

CO. CAPT D. VOLGENAU TECH DIR. MR. EARL MESSERE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	44.477	87.879
TOTAL PROCUREMENT	0.961	0.875
TOTAL O&M	14.816	14.800
TOTAL OTHER	8.349	8.082
TOTAL ANNUAL LAB	68.603	60.586
 TOTAL INHOUSE	11.759	17.927
TOTAL INHOUSE RDT&E	9.931	16.226
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	25	0	18	7
CIVILIAN	25	2	13	12
TOTAL	50	2	31	19

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
594	82.822	18.218	335.132	430.672	80.151	0.000

...MISSION

TO PROVIDE DEEP WATER DEV AND OPRNL T&E FACLTYS FOR U/W ACOUSTIC MEASUREMENTS, TESTING, AND CALBRN SONARS. PROVIDE ACCURATE U/W, SURFCE AND IN-AIR TRCKNG DATA ON SHIPS, SUBS, AIRCRAFT AND WEAPON SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

MK48 WEAPON SYSTEMS TRAINING CERTIFICATION PROGRAM

SHIP SILENCING PROGRAM

FLEET TRAINING/SUBROC, RANGEX, SHAREM

TORPEX/RANGEX

R&D TESTS/CAPTOR/MP SONAR/TOWED ARRAYS/LAMPS/BQQ 5/DICASS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

HIGHLY ADVNCD AND INSTRMNTD ASW WEAPONS, SONAR, AND FORACS TEST MEASURMNT RANGES IN SUPPORT OF NAVY ASW AND UNDERSEA R&D PROGRAMS, AND ASW FLEET ASSESSMENT AND OPERATIONAL READINESS.

INSTALLATION: UNDERWATER SYSTEMS CENTER (NUSC)

NEWPORT, RI

CO. CAPT D. VOLGENAU

TECH DIR. MR. EARL MESSERE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	206.068	246.458
TOTAL PROCUREMENT	114.852	116.447
TOTAL OEM	180.959	142.520
TOTAL OTHER	80.477	19.669
TOTAL ANNUAL LAB	481.855	525.094
 TOTAL INHOUSE	199.010	239.520
TOTAL INHOUSE RDT&E	111.064	136.585
ANNUAL OPERATING COST	75.214	88.026

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	84	0	73	11
CIVILIAN	3461	86	1938	1523
TOTAL	3545	86	2011	1534

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
379	1118.991	221.281	532.819	1878.091	63.856	63.282

...MISSION

TO BE THE PRINCIPAL NAVY RDT&E CTR FOR SUBMARINE WARFARE AND SUBMARINE WEAPON SYSTEMS

...CURRENT IMPORTANT PROGRAMS

ADVNCD TECHNGY IN U/W ACOUTCS, INFO PROCSNG, WEAPONRY.
DESGN, DEV & EVAL U/W COMBAT SUB SYSIMS INCNDG SUBACS & SURF SHIP SONAR.
RDT&E FOR OVERALL U/W COMBAT (TRIDENT, 688, ETC.).
INTRODUCE TO FLI AND IN-SERV ENGINEERING OF MK48 & DEV OF MK48 ADCAP.
DESGN, DEV&EVAL OF LAUNCHERS, U/W TARGET SYS & MOBILE/FIXD U/W TEST RANGES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PRIMARY IN-HSE R&D CAPABILITY FOR NAVY U/W COMBAT SYSTEMS SUBSYSTEMS AND TECHNLGYS FOR SONAR SYSTEMS (HULL-TOWD/SUB COMCTNS SYSTEMS INTEGRN/SUB ANTRA SYSTEMS). U/W WPN RANGE TECHNLGY/REDINESS OF IN-SVC SHIPBOARD U/W SYSTEMS/ASW SUP. TORPEDO TEST RANGES(FIXD/PORTBLE)SHLOW AND DP WTR ASW WPN FIRE CTRL R&D FACILITY. ASW WPN LAUNCHING DEVICE R&D FACILITY, QLTY ENG, EVAL&RELIABILITY LAB. BERMUDA RSCH FACLTY, TORPEDO PROPULSN TEST FACLTY, ELECTMGNTC FACLTY, SYS CRIFCTN AND INTGRN FACLTY, ACOUSTC NSMT & XDUCER R&E FACLTY, TORPDO TEST RANGE.

INSTALLATION: WEAPONS CENTER

CHINA LAKE, CA

CO. CAPT K. A. DICKERSON

TECH DIR. DR. B. W. HAYS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	847.955	822.006
TOTAL PROCUREMENT	204.996	215.369
TOTAL O&M	54.727	50.047
TOTAL OTHER	59.869	66.286
TOTAL ANNUAL LAB	667.047	653.708
 TOTAL INHOUSE	284.262	854.280
TOTAL INHOUSE RDT&E	165.794	192.033
ANNUAL OPERATING COST	87.515	98.885

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	567	0	42	525
CIVILIAN	5237	94	1806	3431
TOTAL	5804	94	1848	3956

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1127267	2143.489	193.080	2907.156	5243.675	239.674	120.212

...MISSION

THE PRINCIPAL NAVY RDT&E CENTER FOR AIR WARFARE SYSTEMS (EXCEPT ANTI-SUBMARINE WARFARE SYSTEMS) AND MISSILE WEAPON SYSTEMS. AND THE NATIONAL RANGE/FACILITY FOR PARACHUTE TEST AND EVALUATION.

...CURRENT IMPORTANT PROGRAMS

ANTI-AIR MSL: AIM-9L/M SIDEWINDER, AIM/RIM-7F/M SPARROW, OUT AIR BAT MSL
ANTI-SURFACE MSLS: AGM/RGM-84 HARPOON, BGM-109 TOMAHAWK, AGM-123 SKIPPER
ELECTRONIC W/F: AGM-88 HARM, ALR-67, SIMULATION FACILITIES, TACTICS EVAL
TAC A/C SYS INTEGRATION A-7E, A-6E+, F/A-18, AH-1, A/C FIRE CONTROL SYS
AIR/SURFACE-LAUNCHED WEAPONS AND WEAPONS COMPONENTS. AIRCREW ESCAPE SYS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCT IN-HOUSE RESEARCH AND ESTABLISH AND MAINTAIN PRIMARY IN-HOUSE DEVELOPMENT, TEST, EVALUATION, AND IN-SERVICE ENGINEERING SUPPORT FOR SPECIFIC NAVY, MARINE CORPS AND JOINT SERVICE PRODUCTS SUCH AS ANTI-AIR MISSILES, ANTI-SURFACE WEAPONS, DEFENSE PENETRATION SYSTEMS, INTEGRATED TACTICAL AIRCRAFT SYSTEMS. FACILITIES INCLUDE MICHELSON LAB, ELECTRONIC WARFARE THREAT ENVIRONMENT SIMULATION, SOLID STATE DEVICE LAB, ENCOUNTER SIMULATION LAB, PROPULSION RESEARCH LAB, MICROELECTRONICS FACILITY, EXPLOSIVES R&D FACILITIES, GROUND AND AIRCRAFT RANGES, EXTERIOR AND TERMINAL BALLISTICS RANGES, ARMITAGE AIR FIELD, PARACHUTE TEST TOWERS, SUPERSONIC TEST TRACKS, MICROWAVE ANECHOIC FACILITIES, RADIO-FREQUENCY AND INFRARED/ELECTRO-OPTICAL HARDWARE-IN-THE-LOOP SIMULATIONS, LASER/ELECTRO-OPTICS LABS, & AIRCRAFT INTEGRATION/SIMULATION FACILITIES.

INSTALLATION: WEAPONS EVALUATION FACILITY

ALBUQUERQUE, NM

CO. CAPT. J. E. KILLIAN TECH DIR. DR. S. R. RANDALL

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	8.762	8.823
TOTAL PROCUREMENT	1.400	1.900
TOTAL O&M	2.671	2.947
TOTAL OTHER	5.698	6.697
TOTAL ANNUAL LAB	18.526	15.476
TOTAL INHOUSE	12.541	18.924
TOTAL INHOUSE RDT&E	8.181	3.160
ANNUAL OPERATING COST	1.658	1.401

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	135	0	28	112
CIVILIAN	124	0	44	80
TOTAL	259	0	67	192

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
7	23.000	34.000	95.000	152.000	9.600	2.258

...MISSION

MISSION: CONDUCT THE NAVY NUCLEAR WEAPONS SYSTEM SAFETY PROGRAM. CONDUCT TEST AND EVALUATION PROJECTS ON NUCLEAR AND SELECTED NON-NUCLEAR WEAPONS. PERFORM NUCLEAR CERTIFICATION TRIALS INCLUDING NUCLEAR INSURV.

...CURRENT IMPORTANT PROGRAMS

PROGRAMS: ONGOING NUCLEAR SAFETY PROGRAM ON ALL NAVY NUCLEAR WEAPON SYSTEMS, DEVELOPMENT SUPPORT FOR SUCH PROGRAMS AS F/A-18A, ASW STANDOFF WEAPON, A NEW DEPTH STRIKE BOMB, AND THE TRIDENT D5, MAINTENANCE OF OVER 800 LOADING MANUALS AND CHECKLISTS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FUNCTIONS: CONDUCT NAVY NUCLEAR WEAPON SYSTEM SAFETY PROGRAM. CONDUCT CERTIFICATION AND COMPATIBILITY TRIALS ON AIR-LAUNCHED NUCLEAR WEAPON SYSTEMS. SUPPORT THE DESIGN, DEVELOPMENT, TEST, AND EVALUATION OF NEW NUCLEAR WEAPON SYSTEMS. SUPPORT NAVY NUCLEAR SURVIVABILITY PROGRAMS. DEVELOP, VERIFY AND MAINTAIN CONVENTIONAL AND NUCLEAR WEAPON LOADING MANUALS AND CHECKLISTS FOR ALL NAVY AIRCRAFT. SUPPORT NAVY HIGH ENERGY LASER PROGRAMS.

CAPABILITIES: FLIGHT TEST UTILIZING 8 A-7 AIRCRAFT, EXTENSIVE AIRCRAFT INSTRUMENTATION, TELEMETRY AND DATA REDUCTION. IN-HOUSE COMPUTER FACILITIES AS WELL AS ACCESS EXTENSIVE KIRTLAND AFB COMPUTER RESOURCES. ACCESS TO WHITE SANDS MISSILE RANGE AND THE SAN JIA AND LOS ALAMOS NATIONAL LABORATORIES. ACCESS TO HPD AND VPD EMP TEST FACILITIES.

INSTALLATION: AERO PROPULSION LABORATORY

WPAFB, OHIO

DIR. COL JAMES D. JOHNSON CH SCI DR. EDWARD T. CURRAN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	185.316	154.407
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	2.385	2.395
TOTAL ANNUAL LAB	187.651	156.802
 TOTAL INHOUSE	25.805	27.805
TOTAL INHOUSE RDT&E	28.470	25.410
ANNUAL OPERATING COST	5.256	5.650

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	56	4	54	2
CIVILIAN	328	21	207	121
TOTAL	384	25	261	123

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP	EQUIP
42	280.744	66.208	104.396	451.348	83.158	42.081

...MISSION

PLAN AND EXECUTE RESEARCH, EXPLORATORY AND ADVANCED DEVELOPMENT PROGRAMS IN AIR-BREATHING PROPULSION, AEROSPACE POWER, FUELS AND LUBRICATION, AND AIRCRAFT FIRE PROTECTION TECHNOLOGY. CONDUCT CONTRACT AND IN-HOUSE PROGRAMS. PROVIDE OPERATIONAL AND SYSTEMS SUPPORT

...CURRENT IMPORTANT PROGRAMS

ADVANCED TURBINE ENGINE GAS GENERATOR(S) (ATEGG) TECHNOLOGY
 HIGH PERFORMANCE TURBINE ENGINE INITIATIVE
 HIGH MACH NUMBER PROPULSION SYSTEM TECHNOLOGY
 POWER TECHNOLOGY FOR MILITARY SPACECRAFT
 HIGH DENSITY AVIATION FUELS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

SUPPORT, FUEL TANK AND NACELLE SIMULATORS, FIRE RESEARCH LAB, FUEL ANALYSIS LAB, COMBUSTION FAC, LUBE TEST RIGS, BEARING TEST RIGS, FUEL HANDLING FAC, HIGH SPEED DRIVE STAND, COMPRESSOR RESEARCH TEST FACILITIES, LASER HOLOGRAPHY LAB, ROTOR TEST FAC, ONE SEA LEVEL TEST STAND CAPABLE OF 60,000 LBS THRUST, ONE TURBINE ENGINE ALTITUDE CELL, THREE PROPELLER WHIRL RIGS - ONE CAPABLE OF 10,000 HP, DIRECT CONNECT RAMJET TEST FAC, RAMJET COMPONENTS LAB, AIRCRAFT ELECTRICAL POWER FAC WITH THREE 350 HP DRIVES, SUPERCONDUCTIVITY LAB, HIGH POWER LAB TO FIVE MEGAWATT, THERMAL ENERGY STORAGE LAB, HYDRAULICS LAB, PLASMA PHYSICS LAB, SOLAR CELL LAB, FUEL HYDROGENATION REACTOR, BATTERY LAB.

INSTALLATION: AEROSPACE MEDICAL RESEARCH LAB

WPAFB, OH

CDR.COL.GEORGE C. MOHR

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	42.485	28.534
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	1.262	1.300
TOTAL OTHER	8.949	1.282
TOTAL ANNUAL LAB	47.696	31.116
TOTAL INHOUSE	10.666	10.206
TOTAL INHOUSE RDT&E	10.891	10.019
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	181	10	63	68
CIVILIAN	164	31	99	65
TOTAL	295	41	162	133

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
80	119.000	1.000	100.000	220.000	14.971	29.521

...MISSION

ACCOMPLISH BEHAVIORIAL AND BIOMEDICAL RESEARCH AND DEVELOPMENT TO DEFINE HUMAN TOLERANCE AND DEGRADATION OF HUMAN PERFORMANCE UNDER THE CONDITION OF ENVIRONMENTAL STRESS ASSOCIATED WITH AEROSPACE OPERATIONS AND PROVIDE SUPPORT TO SYSTEMS DEVELOPMENT IN THE ABOVE AREAS.

...CURRENT IMPORTANT PROGRAMS

OPERATOR COMMAND CONTROL AND COMMUNICATIONS TECHNOLOGY.CREW SYSTEMS AUTOMATION TECHNOLOGY.ADVANCED ESCAPE TECHNOLOGY.HUMAN COUNTERMEASURES TECHNOLOGY.ENVIRONMENTAL HEALTH PROTECTION TECHNOLOGY.MAN-IN-SPACE ALTERNATIVES TECHNOLOGY.CHEMICAL DEFENSE TECHNOLOGY.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

HUMAN DECELERATION SYSTEM TO SIMULATE THE COMPLEX ACCELERATION ENVIRON ASSOCIATED WITH EJECTION AND CRASH LANDING.DYNAMIC ENVIRONMENT SIMULATOR A SIX DEGREE OF FREEDOM MAN-RATED CENTRIFUGE USED TO SIMULATE SUSTAINED ACCELERATIONS SUCH AS THOSE ENCOUNTERED IN AIR COMBAT MANEUVERING.THOMAS DOMES-EIGHT ALTITUDE EXPOSURE CHAMBERS TO SIMULATE EXOTIC ARTIFICIAL ATMOSPHERIC CONDITIONS STRATEGIC AND TACTICAL COCKPIT SIMULATION FACILITIES USED TO PERFORM REAL-TIME MAN-IN-THE-LOOP EXPERIMENTS.ANECHOIC AND REVERBERATION CHAMBERS TO ENABLE EXPERIMENTAL INVESTIGATIONS OF POTENTIALLY HAZARDOUS NOISE TO DETERMINE EFFECTS ON BODY FUNCTION AND PERFORMANCE.VIVARIUM-LABORATORY RESEARCH ANIMAL FACILITY.

INSTALLATION: ARMAMENT DIVISION

EGLIN AFB, FL

CDR. MAJOR GENERAL G. E. FORNELL

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	559.809	587.789
TOTAL PROCUREMENT	1,016.704	1,082.260
TOTAL O&M	16.072	12.638
TOTAL OTHER	129.270	165.512
TOTAL ANNUAL LAB	1,721.855	1,748.194
 TOTAL INHOUSE	278.837	310.670
TOTAL INHOUSE RDT&E	127.872	147.121
ANNUAL OPERATING COST	42.041	42.209

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	5146	5	756	4390
CIVILIAN	2152	24	1093	1059
TOTAL	7298	29	1849	5449

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
456816	347.881	968.286	8780.809	10095.976	322.887	380.215

...MISSION

RESPONSIBLE FOR AIR-LAUNCH TAC & AIR DEF MISSILES; NONNUCLEAR MUNITIONS GUIDED WEAP., THREAT SIM, AIRBASE DEF, & RELATED EQUIP. RESPONSIBLE FOR BASIC TECH,DEVEL, TEST, INIT ACQ & DEPLOY. TEST MISSION INCLUDING LEAD CTR IN MUN, ELECTRONIC COMBAT, INTRUSION, INTERDICTION, & CLIMATIC SIM.

...CURRENT IMPORTANT PROGRAMS

ANTI-ARMOR/ANTI-MATERIAL MUNITIONS

PRECISION GUIDANCE MUNITIONS

ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE

RANGE SYSTEMS

HARD TARGET AND RUNWAY CRATERING SUBMUNITIONS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

SCIENTIFIC/ENGINEERING PERSONNEL & LABORATORY FACILITIES CAPABLE OF EXPLOR, ADV, & ENGINEERING DEVELOPMENT OF NONNUCLEAR MUNITIONS & EQUIP. ARMAMENT SYSTEMS TEST ENVIRONMENT COVERING 725 SQUARE MILES WITH LARGE ADJACENT WATER AREA; HAS 28 TEST AREAS WITH INSTRUMENTED FACILITIES INCLUDING PRECISION TRACKING RADARS & PHOTO-OPTICS; IS USED FOR MUNITION TESTING & ELECTROMAGNETIC TEST ENVIRONMENT; AN INSTRUMENTED COMPLEX OF THREAT SYSTEMS FOR EVALUATING WEAPON SYSTEM EFFECTIVENESS; PROVIDES A REALISTIC ENVIRONMENT FOR TESTING A WEAPON SYSTEM AGAINST AN ACTIVE DEFENSE SYSTEM; A CLIMATIC LABORATORY CAPABLE OF TESTING COMPLETE WEAPON SYSTEMS, A COMPUTER SCIENCE LAB, A PHYSICAL SCIENCE LAB, A PHOTO LAB, AN INSTRUMENTATION/R/D FACILITY, & A MISSILE SIMULATION & TEST LABORATORY.

INSTALLATION: ARMAMENT LABORATORY

EGLIN AFB, FL

CDR. COL. STEPHEN P. CONDON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	77.606	189.446
TOTAL PROCUREMENT	0.830	0.905
TOTAL O&M	0.505	0.246
TOTAL OTHER	0.025	0.066
TOTAL ANNUAL LAB	78.966	140.663
 TOTAL INHOUSE	81.522	48.600
TOTAL INHOUSE RDT&E	30.162	47.383
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	147	1	185	98
CIVILIAN	307	16	225	82
TOTAL	454	17	410	120

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL	PROP	EQUIP
0	51.345	0.000	147.200	198.545	13.258	0.000	

...MISSION

AFATL IS SPECIFICALLY RESPONSIBLE FOR THE PLANNING FORMULATION AND EXECUTION OF RESEARCH, EXPLORATORY AND ADVANCED DEVELOPMENT OF NON-NUCLEAR ARMAMENT AND RELATED EQUIPMENT, AS WELL AS TECHNICAL SUPPORT FOR ARMAMENT SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

STRATEGIC DEFENSE INITIATIVE/KINETIC ENERGY WEAPONS AND LETHALITY

INSENSITIVE MUNITIONS TECHNOLOGY

AUTONOMOUS GUIDED BOMB TECHNOLOGY

ADVANCED AIRCRAFT GUN & AMMUNITION TECHNOLOGY

HARD TARGET ORDNANCE TECHNOLOGY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR EQUIPMENT INVENTORY CONSISTS OF A VARIETY OF SIMULATORS, MIXER EQUIPMENT, AND MEASUREMENT MACHINES, SOME WITH RF, X-RAY AND LASER CHARACTERISTICS. AFATL FACILITIES INCLUDE 18 SEPARATE LABORATORIES AND FACILITIES FOR THE CONDUCT OF A WIDE RANGE OF SCIENTIFIC INVESTIGATIONS AND ANALYSES; A RAPID RESPONSE MODEL FABRICATION SHOP; AND A TECHNICAL LIBRARY WHICH HAS ON-LINE ACCESS TO SEVERAL DATA BANKS.

INSTALLATION: ARNOLD ENGINEERING DEVELOPMENT CENTER

TULLAHOMA, TN.

CDR. COL PHILLIP J. CONKAN CH SCI DR. JAMES G. MITCHELL

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	274.605	258.849
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.080	0.014
TOTAL OTHER	7.241	6.878
TOTAL ANNUAL LAB	281.876	265.786
 TOTAL INHOUSE	 97.688	 72.016
TOTAL INHOUSE RDT&E	90.867	65.129
ANNUAL OPERATING COST	88.882	88.285

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	171	2	67	104
CIVILIAN	252	4	67	185
TOTAL	423	6	134	289

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
39081	1178.658	302.784	709.864	2185.806	418.086	86.551

...MISSION

PRIMARY MISSION IS TO PROVIDE ENVIRONMENTAL TEST SUPPORT TO SYSTEMS DEVELOPMENT AND RESEARCH, DEVELOPMENT PROGRAMS OF DOD AND TO KEEP EXISTING FACILITIES MODERN TO PROVIDE ADVANCED FACILITIES AS REQUIRED, AND TO CONTINUALLY DEVELOP ADVANCED TEST TECHNIQUES AND INSTRUMENTATION.

...CURRENT IMPORTANT PROGRAMS

PEACEKEEPER TESTING INCLUDES AERODYNAMIC AND ROCKET MOTOR FIRINGS
ANTI SATELLITE TEST SUPPORT INCLUDES SENSOR TESTING
F100 COMPONENT IMPROVEMENT PROG AND ENGINE MODEL DERIVATIVE PROG TEST
B-1B AND F101 ENGINE AND AERODYNAMIC TEST
INERTIAL UPPER STAGE ROCKET MOTOR FIRINGS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AEDC IS COMPRISED OF ABOUT 35 TEST UNITS. INCLUDED ARE WIND TUNNELS WITH TEST SECTIONS TO 16 FT SQ AND SPEED FROM SUBSONIC TO MACH 20; TURBINE ENGINE TEST CELLS WHICH PROVIDE SIMULATION TO MACH 3; ROCKET TEST CELLS, THE LARGEST RATED AT .5 MILLION LBS THRUST AT ALTITUDE; SPACE SIMULATION CHAMBERS TO 42 FT DIA AND 82 FT HIGH; HYPERBALLISTIC RANGES; DUST & SNOW EROSION FACILITY; BIRD IMPACT FACILITY; TWO CAPTIVE TRAJECTORY SYSTEMS. THESE FACILITIES HAVE SUPPORTED DEVELOPMENT AND QUALIFICATION OF MOST MAJOR AERONAUTICAL, MISSLE, AND SPACE SYSTEM DEVELOPMENT SINCE 1954. THIS TESTING COMPLEMENTS EXPENSIVE AND OFTEN HAZARDOUS FLIGHT TESTING AND ASSURES THAT SYSTEM DEFICIENCIES ARE FOUND EARLY, SAVING TIME AND RESOURCES IN THE OVERALL DEVELOPMENT, ACQUISITION AND DEPLOYMENT PROCESS.

INSTALLATION: AVIONICS LABORATORY

WPAFB, OHIO

DIR COL JAMES D. LANG

CH SCI DR JESSE C. RYLES

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	412.970	477.791
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	7.411	7.596
TOTAL ANNUAL LAB	420.881	485.887
 TOTAL INHOUSE	40.402	40.081
TOTAL INHOUSE RDT&E	82.991	82.485
ANNUAL OPERATING COST	6.886	7.120

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	148	8	131	17
CIVILIAN	578	82	887	191
TOTAL	726	90	518	208

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
220	229.869	9.483	405.264	644.116	53.959	128.741

...MISSION

MAINTAINS AN AVIONICS TECHNOLOGY BASE THROUGH RESEARCH, EXPLORATORY AND ADVANCED DEVELOPMENT AND ASSIGNED BASIC RESEARCH PROGRAMS. DEVELOPS AND DEMONSTRATES COST-EFFECTIVE AVIONICS CONCEPTS TO REDUCE ACQUISITION AND OPERATING COSTS AND IMPROVE OPERATIONAL CAPABILITIES.

...CURRENT IMPORTANT PROGRAMS

VERY HIGH SPEED INTEGRATED CIRCUITS TECHNOLOGY

COMMON SIGNAL PROCESSOR

INTEGRATED ELECTRONIC WARFARE SYSTEM

ULTRA RELIABLE RADAR

AUTOMATIC TARGET CLASSIFICATION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TECHNICAL AREAS INCLUDE FIRE CONTROL, WEAPON DELIVERY, COMMUNICATIONS, ELECTRONIC WARFARE, NAVIGATION, SURVEILLANCE, RECONNAISSANCE, INFO PROCESSING AND CONTROL, SUBSYSTEMS, INTEGRATION AND SYSTEMS ARCHITECTURE, SUPPORTING ELECTRONIC DEVICES. IN-HOUSE LABS INCLUDE SIMULATION AND ANALYSIS OF INTEGRATED DIGITAL SYSTEMS, DESIGN AND FABRICATION OF SPECIALIZED INTEGRATED/HYBRID CIRCUITS AND PRINTED WIRING BOARDS, PERFORMANCE EVALUATION OF E-O SYSTEMS AND CORRELATION WITH WEATHER OBSERVATION, SIMULATION OF REAL-WORLD SIGNAL/JAMMING ENVIRONMENT FOR EVALUATION OF ELECTRONIC WARFARE SYSTEMS, EVALUATION OF RECON SENSORS IN REALISTIC FLIGHT ENVIRONMENT. OTHER LABS ARE MAINTAINED FOR EVALUATION OF AIRBORNE AND SPACE SENSORS AND COMPONENTS FROM OPTICAL TO RADIO FREQUENCIES.

INSTALLATION: EASTERN SPACE AND MISSILE CENTER

PATRICK AFB, FL

CDR COL NATHAN J. LINDSAY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	0.000	0.000
TOTAL PROCUREMENT	18.008	12.051
TOTAL O&M	346.297	387.798
TOTAL OTHER	159.672	160.244
TOTAL ANNUAL LAR	518.972	510.088
 TOTAL INHOUSE	255.549	266.170
TOTAL INHOUSE RDT&E	0.000	0.000
ANNUAL OPERATING COST	81.815	28.675

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	2892	1	217	2175
CIVILIAN	1188	1	113	1020
TOTAL	8525	2	330	3195

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
26178	220.172	1177.704	4789.850	6187.726	420.186	240.158

...MISSION

SUPPORT OF AIR, GROUND AND SEA LAUNCHED SPACE AND MISSILE SYSTEMS FROM CCAFS AND KSC OPERATION OF INSTRUMENTED SHIP IN SUPPORT OF REQUIREMENTS. SUPPORT OF USAF SPACETRACK. SUPPORT OF SPECIAL PROJECTS, DOCUMENTED R&D TESTS AND VARIOUS ACTIVITIES.

...CURRENT IMPORTANT PROGRAMS

NAVY PROGRAMS-POSEIDON, TRIDENT, UK POLARIS
MILITARY SPACE SUPPORT PROGRAMS-TITAN
MILITARY MISSION SUPPORT PROGRAMS-SRAM AND PERSHING
NASA PROGRAMS-ATLAS/CENTAUR AND SPACE SHUTTLE
DOD SPACE TRANSPORTATION SYSTEM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ESMC CAPABILITIES INCLUDE: ASSEMBLY, PRELAUNCH CHECKOUT AND LAUNCH PERFORMANCE EVALUATION OF BALLISTIC MISSILES, SPACE LAUNCH VEHICLES AND PAYLOADS. SERVICES INCLUDE: TRACKING, LONG DISTANCE COMMUNICATIONS AND DATA REDUCTION AND ANALYSIS. EQUIPMENT AND FACILITIES INCLUDE: CCAFS LAUNCH SUPPORT MAINLAND AND DOWNRANGE INSTRUMENTATION AND COMMUNICATION, INSTRUMENTED SHIP DATA PROCESSING, PHOTO/ELECTRO-OPTICAL SERVICES, MISSILE IMPACT LOCATION SYSTEMS, METEOROLOGICAL SERVICES AND RANGE TIMING SYSTEMS. ESMC OPERATES AND MAINTAINS CCAFS, MAINLAND SITES AND DOWNRANGE STATIONS. SUPPORT FUNCTIONS INCLUDE: CONTRACTOR OPERATION, PLANT ENGINEERING, LABS, SHOPS, AND OTHER SPECIAL SERVICES.

INSTALLATION: ENGINEERING & SERVICES CTR / RD

TYNDALL AFB, FL

DIR. COL ROBERT BOYER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	87.694	26.936
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.268	0.805
TOTAL OTHER	8.864	8.864
TOTAL ANNUAL LAB	41.826	30.605
 TOTAL INHOUSE	4.883	4.454
TOTAL INHOUSE RDT&E	1.508	1.078
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	71	7	83	88
CIVILIAN	36	8	22	14
TOTAL	107	10	55	52

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
3	12.000	14.000	0.000	26.000	1.960	2.921

...MISSION

AIR FORCE LEAD AGENCY FOR RESEARCH, DEVELOPMENT, TEST AND EVALUATION IN THE AREAS OF CIVIL ENGINEERING AND ENVIRONMENTAL QUALITY. AF FOCAL POINT FOR ENVIRONMENTAL QUALITY AND LEAD LABORATORY FOR FACILITIES ENERGY.

...CURRENT IMPORTANT PROGRAMS

RAPID RUNWAY REPAIR AND NEW AIRCRAFT OPERATIONAL SURFACES
ENVIRONMENTAL QUALITY AND ASSESSMENT RESEARCH AND DEVELOPMENT
SURVIVABILITY/VULNERABILITY OF FACILITIES
FACILITIES ENERGY AND ALTERNATE ENERGY SOURCES
FIRE PROTECTION

...FUNCTIONS/EQUIPMENT/CAPABILITIES

RESEARCH AND TEST FACILITIES CONSIST OF AN ENVIRONMENTAL LABORATORY AND A CIVIL ENGINEERING TEST AND EVALUATION FACILITY. THE ENVIRONMENTAL LABORATORY HOUSES INSTRUMENTATION AND SCIENTIFIC APPARATUS TO PROVIDE A PRIMARY CAPABILITY IN CHEMICAL ANALYSIS AND MEASUREMENT OF POLLUTANTS AND TOXINS. THE CIVIL ENGINEERING TEST AND EVALUATION FACILITIES INCLUDE AN ENCLOSED SIMULATED BOMB CRATER FACILITY, EXPLOSIVE CRATER FACILITY, AND A FIRE TEST FACILITY. A NEW LAB COMPLEX IS DUE TO BE COMPLETED IN 1987. THIS NEW FACILITY WILL HOUSE RESEARCH LABORATORY EFFORTS IN THE FOLLOWING AREAS: ASPHALT, CONCRETE, STRUCTURES, SOILS, INSTRUMENTATION, CORROSION, PILOT PLANT, WATER QUALITY, COMBUSTION, CHEMICAL ANALYSIS, AND WET CHEMISTRY.

INSTALLATION: FLIGHT DYNAMICS LABORATORY

WPAFB, OHIO

DIR COL THADDEUS H. SANDFORD

CH SCI DR G. KEITH RICHEY

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	202.786	184.780
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	7.480	7.616
TOTAL ANNUAL LAB	210.216	192.396
 TOTAL INHOUSE	42.441	44.073
TOTAL INHOUSE RDT&E	85.011	86.457
ANNUAL OPERATING COST	7.983	8.120

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		TOTAL PROF	NON- PROF
		PHDS			
MILITARY	171		1	189	82
CIVILIAN	628		80	415	218
TOTAL	799		81	554	245

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
76	271.586	5.400	294.283	571.219	50.676	47.314

...MISSION

PLANS AND EXECUTES RESEARCH, EXPLORATORY AND ADV DEV PROGRAMS FOR AEROSPACE FLT VEHICLE STRUCTURES, AERODYNAMICS, FLT CONTROL, DYNAMICS AND VEHICLE EQUIPMENT. LEAD AFSC LAB FOR EXPERIMENTAL FLT VEHICLES. FOCAL POINT FOR NON-NUCLEAR SURVIVABILITY PROGRAMS.

...CURRENT IMPORTANT PROGRAMS

ADVANCED FIGHTER TECHNOLOGY INTEGRATION
 FORWARD SWEPT WING TECHNOLOGY DEMONSTRATOR
 COMPUTATIONAL FLUID DYNAMICS
 SHORT TAKE-OFF/LANDING AND MANEUVER TECHNOLOGY
 ADVANCED COMPOSITE AND METALLIC STRUCTURES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

A GROUND-BASED PILOT-IN-THE-LOOP SIMULATION WAS COMPLETED FOR A TERRAIN FOLLOWING/TERRAIN AVOIDANCE SYSTEM DESIGN. A CRITICAL FLAP TAB FLUTTER WIND TUNNEL TEST, PROOF LOAD AND GROUND VIBRATION TESTS ON WING AND FUSELAGE, AND IN-FLIGHT SIMULATIONS WERE SUCCESSFULLY COMPLETED FOR THE X-29 AIRCRAFT. A SUPERPLASTIC FORMED/DIFFUSION-BONDED NOZZLE FAIRING STRUCTURE WAS DEMONSTRATED AND TRANSITIONED TO THE F-15. THE AIRCRAFT GROUND INDUCED LOADS EXCITATION TEST FACILITY WAS DEVELOPED AND USED TO PROVIDE SIMULATIONS OF AIRCRAFT OPERATING FROM ROUGH/DAMAGED/REPAIRED RUNWAYS. PATCHES MADE OF AN ADVANCED COMPOSITE MATERIAL WERE DEMONSTRATED TO BE AN EFFECTIVE MEANS OF REPAIRING CRACKED METAL STRUCTURES. ADVANCED ROUGH FIELD LANDING GEAR DESIGNS WERE EVALUATED IN THE LANDING GEAR DEVELOPMENT FACILITY.

INSTALLATION: FLIGHT TEST CENTER

EDWARDS AFB, CA.

CDR MAJ. GEN. W. T. TWINTING

TECH DIR MR. C. E. ADOLPH

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	197.229	238.500
TOTAL PROCUREMENT	2.709	6.141
TOTAL O&M	29.572	29.770
TOTAL OTHER	145.287	141.908
TOTAL ANNUAL LAB	874.747	416.819
 TOTAL INHOUSE	268.129	280.068
TOTAL INHOUSE RDT&E	183.188	187.671
ANNUAL OPERATING COST	52.800	44.100

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	8414	45	617	2797
CIVILIAN	1942	4	282	1660
TOTAL	5356	49	899	4457

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
297796	187.106	264.473	7663.808	8115.887	316.502	148.075

...MISSION

TOTAL SYSTEMS DT&E OF MANNED AND UNMANNED AEROSPACE VEHICLES. T&E OF RESEARCH VEHICLES AND AERODYNAMIC DECELERATORS. OPERATE USAF TEST PILOT SCHOOL, EDWARDS FLT TEST RANGE AND UTAH TEST AND TRAINING RANGE. SUPPORT OT&E. SPT USAF DOD, GOVT, CONTRACTOR AND FOREIGN T&E.

...CURRENT IMPORTANT PROGRAMS

B-1B DT&E/OT&E

FIGHTER UPGRADE: F-16 MSIP, F-15, LANTIRN, F-15E

B-52 STRATEGIC SYSTEMS UPGRADE

T-46

TECHNOLOGY: AFTI F-16, X-29, AFTI F-111

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR EQP, FACILITIES AND PERSONNEL CAPABILITIES ARE AVAILABLE TO CONDUCT TOTAL WEAPON SYSTEMS DT&E/OT&E OF AERONAUTICAL SYSTEMS. TECH FACILITIES/CAPABILITIES INCLUDE AERODYNAMIC ENGINEERING AND AVIONICS (IAST) SIMULATORS; A REAL TIME MISSION CONTROL CENTER; MICROWAVE RANGE FROM HILL AFB TO VANDENBERG AFB; PRECISION IMPACT BOMB/GUNNERY/INFRARED/PHOTO RESOLUTION/RADAR FIDELITY AND CARGO/PERSONNEL AIRDROP RANGES; RADAR/CINE-T SPACE POSITIONING; DATA COLLECTION, REDUCTION & ANALYSIS; REAL-TIME FLUTTER AND LOADS; PHOTO/TV LAB; & COMPLETE AIRCRAFT INSTRUMENTATION FACILITIES; AIRCRAFT/ENGINE/AVIONICS SHOPS; MUNITIONS STORAGE AND CHECKOUT, CRUISE MISSILE INTEGRATED MAINTENANCE FACILITY; 19 MAJOR HANGAR/ENGINEERING SUPPORT FACILITIES; 15,000 FT RUNWAY; SEVERAL MILES OF DRY LAKE RUNWAYS; AND THE R-2508 AND UTRR AIRSPACE.

INSTALLATION: FRANK J. SEILER RESEARCH LABORATORY

USAFAC, COL SPNGS, CO

CDR LTCOL J. H. PLETSCHER

CH SCI LTCOL K. E. LIEGENTHALER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	1.834	1.686
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.703	0.685
TOTAL ANNUAL LAB	2.537	2.371
 TOTAL INHOUSE	2.537	2.371
TOTAL INHOUSE RDT&E	1.834	1.686
ANNUAL OPERATING COST	0.186	0.142

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	28	9	18	5
CIVILIAN	9	1	5	4
TOTAL	37	10	23	9

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	190.000	3.000	0.000	193.000	1.820	3.289

...MISSION

CONDUCT BASIC RESEARCH IN LASERS, AEROMECHANICS, AND CHEMISTRY.
ENCOURAGE AND SUPPORT USAF ACADEMY FACULTY & CADET RESEARCH BY DIRECT
PARTICIPATION. SPONSOR FACULTY RESEARCH PROGRAMS.

...CURRENT IMPORTANT PROGRAMS

ELECTROCHEMISTRY OF MOLTEN SALTS (BATTERY RESEARCH)

ENERGETIC MATERIALS

THEORETICAL CALCULATIONS

LASER RESEARCH (GYROS, DAMAGE, KINETICS)

UNSTEADY AERODYNAMICS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MOLTEN SALT MELT STRUCTURE, CONDUCTIVITY & ELECTRODE REACTIONS,
EXPLOSIVE & PROPELLANT SYNTH, DECOMP MECH & DETONATION PHENOMENA. MSMT,
GENERATION, SPECTROSCOPY & MO CALC OF EXCITED STATE SPECIES. FTIR, UN,
FTNMR, NEPR, XRA / & MASS SPEC, CHROMATOGRAPHS, ELECTRON MICROSCOPE.
SPECIAL SPECTROMETERS & CONDUCTIVITY EQUIP. FULL WET LAB. ADV ANALYSIS
& EVAL TECHNIQUES FOR INERTIAL GUIDANCE SENSORS USING 2-AXIS TABLE, AUTO
AZIMUTH ALIGN EQUIP & ELECT CONTROL EQUIP FOR 50 SERIES INERTIAL DEVICES
IN CLASS 1000 CLEAN LAB ON 80 TON AIR SUPPORTED STABLE PLATFORM. VAX
11780, MINICIMP AND SOFTWARE TO AUTOMATE GYRO RESEARCH. LASER
LABORATORIES FOR DAMAGE AND KINETICS EXPERIMENTS. AERO RESEARCH IN
SUBSONIC AND TRISONIC WIND TUNNELS. HOLOGRAPHIC, HOT WIRE, & OTHER
FLOW VISUALIZATION CAPABILITIES AND ASSOCIATED INSTRUMENTATION.

INSTALLATION: GEOPHYSICS LABORATORY

BEDFORD, MA

CDR COL JR JOHNSON

CH SCI DR. ALVA T. STAIR JR

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	108.482	98.809
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	7.419	7.790
TOTAL ANNUAL LAB	115.851	106.099
 TOTAL INHOUSE	86.666	88.794
TOTAL INHOUSE RDT&E	82.503	84.428
ANNUAL OPERATING COST	8.579	9.008

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	125	2	65	60
CIVILIAN	474	89	264	210
TOTAL	599	91	329	270

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
886	895.782	14.821	25.883	436.436	12.171	38.464	

...MISSION

CONDUCTS AND SUPPORTS AF RELEVANT RESEARCH, EXPLORATORY AND ADVANCED DEVELOPMENT IN ENVIRONMENTAL AND PHYSICAL SCIENCES WITH MAJOR EMPHASIS ON GEOPHYSICS. ALSO CONDUCTS AND SUPPORTS SPECIFICALLY ASSIGNED ADVANCED DEVELOPMENT EFFORTS.

...CURRENT IMPORTANT PROGRAMS

SPACE ENVIRONMENT

WEATHER IMPACT ON AIR FORCE SYSTEMS

IONOSPHERIC SPECIFICATION FOR C3I SYSTEMS

OPTICAL, INFRARED AND UV BACKGROUNDS FOR SURVEILLANCE SYSTEMS

GEODETIC AND EARTH MOTION EFFECTS ON MISSILE CEP.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCTS RESEARCH AND TECHNICAL DEVELOPMENT IN TERRESTRIAL AND ATMOSPHERIC SCIENCES, IONOSPHERIC, OPTICAL, SPACE AND SOLAR PHYSICS RELATING TO AIR FORCE NEEDS. EQUIPMENT AND FACILITIES INCLUDE IN-HOUSE LABORATORIES; SPACE SIMULATION CHAMBERS; ROCKET AND BALLOON LAUNCH FACILITIES; AND TWO KC-135 AIRCRAFT FOR OPTICAL, UPPER ATMOSPHERIC AND IONOSPHERIC STUDIES

INSTALLATION: HUMAN RESOURCES LABORATORY

BROOKS AFB, TX

CDR. COL DENNIS W. JARVI

CH SCI. DR. EARL A. ALLUISI

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	58.128	57.090
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	8.018	2.354
TOTAL OTHER	5.726	6.191
TOTAL ANNUAL LAB	66.867	65.635
TOTAL INHOUSE	17.604	19.716
TOTAL INHOUSE RDT&E	12.528	18.525
ANNUAL OPERATING COST	2.746	8.006

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	185	12	105	80
CIVILIAN	285	89	183	102
TOTAL	420	51	238	182

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5	81.180	65.819	53.282	199.731	6.727	115.450

...MISSION

PLAN AND EXECUTE RESEARCH, EXPLORATORY, AND ADVANCED DEVELOPMENT PROGRAMS IN TRAINING, LOGISTICS, AND MANPOWER AND FORCE MANAGEMENT.

...CURRENT IMPORTANT PROGRAMS

MANPOWER AND FORCE MANAGEMENT: SELECTION, CLASSIFICATION, RETENTION, AND JOB PERFORMANCE MEASUREMENT. TRAINING: FLIGHT SIMULATION, VISUAL SIMULATION, REQUIREMENTS, COMPUTER BASED INSTRUCTION, MANAGEMENT OF OJT, AND TEAM TRAINING. LOGISTICS: COMBAT MAINTENANCE, AUTOMATED TECHNICAL INFORMATION, AND RELIABILITY AND MAINTAINABILITY DESIGN.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

RESEARCH IN SELECTION AND CLASSIFICATIONS TESTING (THE ARMED SERVICES VOCATIONAL APTITUDE BATTERY), OCCUPATIONAL ANALYSES, MANPOWER MANAGEMENT, AND JOB PERFORMANCE MEASUREMENT. DEVELOPMENT AND TESTING OF FLIGHT TRAINING SIMULATORS, THEIR VISUAL DISPLAYS, AND SIMULATOR TRAINING EFFECTIVENESS. RESEARCH IN COMPUTER BASED INSTRUCTION (INSTRUCTIONAL SUPPORT SYSTEM). APPLICATION OF ARTIFICIAL INTELLIGENCE TO TRAINING AND JOB AIDING. DEVELOPMENT OF COMPUTER AIDS TO INCORPORATE RELIABILITY AND MAINTAINABILITY IN INITIAL WEAPONS SYSTEMS DESIGNS. INVESTIGATION INTO AUTOMATION THE DEVELOPMENT, TRANSFER, AND DISPLAY OF WEAPONS SYSTEM TECHNICAL DATA. BASIC RESEARCH IN THE THEORIES OF MENTAL APTITUDES AND LEARNING ABILITY. QUICK REACTION STUDIES OF QUESTIONS POSED BY AIR FORCE MANPOWER AND PERSONNEL MANAGEMENT OFFICES.

INSTALLATION: MATERIALS LABORATORY

WPAFB, OHIO

DIR DR GARY L. DENMAN CH SCI DR HARRIS M. BURTE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	154.806	196.529
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	2.500	2.563
TOTAL ANNUAL LAB	157.306	199.092
 TOTAL INHOUSE	25.537	28.482
TOTAL INHOUSE RDT&E	23.087	25.919
ANNUAL OPERATING COST	8.186	8.620

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	51	4	46	5
CIVILIAN	296	54	236	60
TOTAL	347	58	282	65

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
15	188.750	117.941	54.123	360.814	23.840	69.401

...MISSION

PLAN/EXECUTE RESEARCH AND DEVELOPMENT PROGRAMS FOR MATERIALS. PROVIDE TECHNICAL AND MANAGEMENT ASSISTANCE IN SYSTEM STUDIES, ANALYSES, DEVELOPMENT PLANNING, TEST, EVALUATION, MODIFICATION AND OPERATION OF AEROSPACE SYSTEMS. MANAGE/DIRECT MANUFACTURING METHODS PROGRAMS.

...CURRENT IMPORTANT PROGRAMS

STRUCTURAL MATERIALS FOR AEROSPACE SYSTEMS
PROPULSION MATERIALS
ELECTRONIC MATERIALS
LASER HARDENED MATERIALS
MANUFACTURING TECHNOLOGY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MATERIALS RESEARCH AND DEVELOPMENT FACILITIES AND CAPABILITIES FOR AEROSPACE STRUCTURES, THERMAL PROTECTION SYSTEMS, PROPULSION MATERIALS, FLUIDS, LUBRICANTS, FLUID CONTAMINANTS, COATINGS, FIBERS, ELECTROMAGNETIC WINDOWS, SENSORS, LASER WINDOWS AND OPTICAL DEVICES, ELECTRICAL COMPONENTS, NON-DESTRUCTIVE EVALUATION, POLYMERS, MOLECULAR COMPOSITES, NON-METALLIC MATRIX COMPONENTS, ELASTOMERS, METALS, ALLOYS, METAL MATRIX COMPOSITES, METAL PROCESSING, CERAMICS, INTERMETALLICS, STATIC AND DYNAMIC BEHAVIOR, ELECTRONIC/PHYSICAL/CHEMICAL ANALYSIS, FAILURE ANALYSIS, COMPUTER-AIDED MANUFACTURING, POWDER METALLURGY, AND OTHER MAJOR MATERIALS FUNCTIONS WHICH INCLUDE MANUFACTURING TECHNOLOGY, SYSTEMS APPLICATIONS AND SYSTEMS SUPPORT.

INSTALLATION: OFFICE OF SCIENTIFIC RESEARCH

WASHINGTON, DC

CDR COL GERALD P. D'ARCY

TECH DIR DR. JOHN O. DIMMOCK

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	144.184	166.220
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.040	0.028
TOTAL OTHER	8.824	8.424
TOTAL ANNUAL LAB	147.548	169.672
 TOTAL INHOUSE	8.824	8.424
TOTAL INHOUSE RDT&E	0.000	0.000
ANNUAL OPERATING COST	4.708	5.100

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	85	27	89	46
CIVILIAN	103	24	27	76
TOTAL	188	51	66	122

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
0	0.000	36.688	5.128	41.816	0.000	0.000	

...MISSION

MANAGES THE AF RESEARCH PROGRAM, PREVENTS TECHNOLOGICAL SURPRISE,
ASSISTS IN SOLVING TECHNOLOGICAL PROBLEMS, PROVIDES RESEARCH OPTIONS,
ENHANCES THE CONTINUED SUPERIORITY OF THE AF OPERATIONAL CAPABILITY, AND
ASSISTS IN THE TRANSITION OF RESEARCH TO DEVELOPMENT PROGRAMS.

...CURRENT IMPORTANT PROGRAMS

LASER PHYSICS

CONTROL OF DISTRIBUTED SYSTEMS

AUDITORY PATTERN RECOGNITION

MONOLITHIC MILLIMETER WAVE INTEGRATED CIRCUITS

MANEUVERABILITY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MANAGE THE AF RESEARCH PROGRAM AND SPONSOR EXTRAMURAL RESEARCH.

INSTALLATION: ROCKET PROPULSION LABORATORY

EDWARDS AFB, CA

CDR. COL JERRY DAVIS

DIR. MR. DON HART

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	68.047	62.920
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	5.803	6.085
TOTAL ANNUAL LAB	68.850	68.955
 TOTAL INHOUSE	21.847	22.455
TOTAL INHOUSE RDT&E	16.044	16.420
ANNUAL OPERATING COST	0.994	1.005

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	171	2	71	100
CIVILIAN	245	17	106	145
TOTAL	416	19	171	245

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
68345	419.046	86.848	4.780	510.674	126.800	28.300

...MISSION

CONDUCT THE AIR FORCE'S ROCKET PROPULSION AND INTERDISCIPLINARY SPACE TECHNOLOGY RESEARCH, EXPLORATORY, & ADV TECH DEVEL PROGRAMS FOR FUTURE ICBMS, AIR LAUNCHED MISSILES, SPACE VEHICLES, & SATELLITES. PROVIDES ROCKET PROPULSION TECHNOLOGICAL SUPPORT TO DOD AND NON-DOD AGENCIES.

...CURRENT IMPORTANT PROGRAMS

PROVIDE SOLID PROPULSION OPTIONS FOR SMALL MOBILE BALLISTIC MISSILES. PROVIDE HIGH PERF & LIGHTWEIGHT COMPONENT OPTIONS FOR TACTICAL MISSILES. PROVIDE LOW AIR LAUNCHED MISSILE PROPULSION SIGNATURE. PROVIDE HIGH PERF PROPULSION OPTIONS FOR SPACE SYS ORBIT TRANSFER. DEMONSTRATE HIGHER PERF NON-CONVENTIONAL PROPULSION CONCEPTS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

LABORATORIES FOR SYNTHESIS, ANALYSIS, FORMULATION, & EVAL OF NEW PROPELLANTS. FACILITIES FOR MIXING, CASTING, CURING & TESTING SOLID ROCKET MOTORS. SOLID MOTOR EXPERIMENTAL COMPLEX FOR INVESTIGATION OF COMBUSTION, AGING, STRUCTURAL INTEGRITY, BALLISTIC PERFORMANCE & HIGH TEMP COMPONENTS. LAB FOR EXPERIMENTATION OF SMALL ATTITUDE CONTROL & SATELLITE PROPULSION SYS & COMPONENTS UNDER SIMULATED SPACE ENVIRONMENTS. ALTITUDE EXPERIMENTATION OF LIQUID, SOLAR, ELECTRIC, & SOLID ROCKETS UP TO 60,000 POUNDS THRUST. AMBIENT EXPERIMENTATION OF LIQUID OR SOLID ROCKETS UP TO 10,000,000 POUNDS THRUST. IN-HOUSE ANALYTICAL CAPABILITY FOR DESIGN, ANALYSIS, & DATA REDUCTION. SHOPS FOR FABRICATING EXPERIMENTAL HARDWARE AND SYSTEMS.

INSTALLATION: ROME AIR DEVELOPMENT CENTER

GRIFFISS AFB, NY

CDR. COL. CARL G O'BERRY

CH SCI. DR. FRED I. DIAMOND

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	802.100	415.800
TOTAL PROCUREMENT	27.100	20.500
TOTAL O&M	58.700	65.600
TOTAL OTHER	8.758	9.000
TOTAL ANNUAL LAB	896.658	510.900
 TOTAL INHOUSE	 49.472	 65.183
TOTAL INHOUSE RDT&E	40.784	56.183
ANNUAL OPERATING COST	136.400	142.300

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	218	3	152	66
CIVILIAN	1099	65	685	414
TOTAL	1317	68	837	480

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1517	764.945	52.839	182.271	1000.055	29.595	56.243

...MISSION

CONDUCTS RESEARCH, EXPLORATORY AND ADVANCED DEVELOPMENT, TEST AND SELECTED ENGINEERING DEVELOPMENT AND ACQUISITION SUPPORT PROGRAMS IN SUPPORT OF COMMAND, CONTROL AND COMMUNICATIONS AND INTELLIGENCE ACTIVITIES.

...CURRENT IMPORTANT PROGRAMS

ADVANCED TACTICAL RADAR
SPACE BASED RADAR
COMMAND, CONTROL AND COMMUNICATIONS DECISION AIDS
SATELLITE COMMUNICATIONS
FIBER OPTICS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR AREAS OF TECHNOLOGY ARE ANTENNAS, SIGNAL PROCESSING, SOLID STATE COMPONENTS, THERMIQUONICS, OPTO-ELECTRONICS, RADIATION HARDENING, SYSTEM AND COMPONENT RELIABILITY, SOFTWARE, ARTIFICIAL INTELLIGENCE-WITH EMPHASIS ON DECISION AIDS, AND RECONNAISSANCE AND INTELLIGENCE DATA HANDLING. MAJOR IN-HOUSE FACILITIES ARE RECONNAISSANCE EXPLOITATION FACILITY, HIGH POWER FACILITY, DIGITAL COMMUNICATIONS EXPERIMENTAL FACILITY, R AND D COMPUTER FACILITY FEATURING TWO HONEYWELL 6180 COMPUTERS WITH MULTICS, RELIABILITY ANALYSIS CENTER, RADIATION EFFECTS FACILITY, EXPERIMENTAL PHOTOGAMMETRIC FACILITY, ECCM AND SIGNAL PROCESSING LABORATORY, SOLID STATE DEVICE FAILURE ANALYSIS FACILITY, EXPERIMENTAL DEVICE FABRICATION FACILITY, ELECTROMAGNETIC VULNERABILITY FACILITY FOR WEAPONS TESTING, SURVEILLANCE LABORATORY, AND MATERIALS SYNTHESIS AND DEVELOPMENT FACILITY.

INSTALLATION: SCHOOL OF AEROSPACE MEDICINE

BROOKS AFB, TX.

CDR. COL JEFFREY G DAVIS VICE CDR. COL JAMES H RADDIN, JR

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985	1986
	(ACTUAL)	(ACT + EST)
TOTAL RDT&E	26.570	27.497
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.690	0.717
TOTAL ANNUAL LAB	27.260	28.214
 TOTAL INHOUSE	15.078	16.776
TOTAL INHOUSE RDT&E	14.888	16.059
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL		TOTAL		NON- PROF
		PHDS	PROF	PHDS	PROF	
MILITARY	360	40	69	291	291	
CIVILIAN	269	41	108	161	161	
TOTAL	629	81	177	452	452	

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1309	409.974	30.279	161.800	602.053	53.153	25.246

...MISSION

CONDUCT EXPLORATORY RESEARCH AND DEVELOPMENT PROGRAMS IN AEROSPACE BIOTECHNOLOGY, INCLUDES LIFE SUPPORT, AEROSPACE MEDICINE, BIOMEDICAL PROGRAMS AND RADIobiOLOGY. PROVIDE MEDICAL EVALUATION AND CONSULTATION FOR AIRCREWS TO ASSURE RETENTION OF FLYING STATUS.

...CURRENT IMPORTANT PROGRAMS

CHEMICAL WARFARE DEFENSE
RADIATION AND DIRECTED ENERGY BIOEFFECTS
CREW READINESS AND PROTECTIVE EQUIPMENT
AEROMEDICAL ASPECTS OF AEROSPACE OPERATIONS
SPACE BIOTECHNOLOGY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

RESEARCH IN AEROSPACE MEDICAL PROBLEMS, LIFE SUPPORT, ENVIRONMENTAL STRESS, RADIobiOLOGY, LASER, BIOMETRICS, BIOMED ENGINEERING, RDT&E ON MEDICAL EQUIPMENT AND SYSTEMS, WHOLE BODY COUNTER, HUMAN CENTRIFUGE, COCKPIT INTEGRATION LAB, CHEMICAL DEFENSE TEST FACILITY, TESTING CELLS, RESEARCH CHAMBERS, TELETHERAPY COBALT 60 RADIATION SOURCE, RADIOFREQUENCY RADIATION SYSTEM, REMOTE INTERACTIVE GRAPHIC TERMINAL SYSTEM, THERMAL CHAMBER, CARDIAC CATH LAB, AEROSPACE MED SCIENCE LAB, LASER HAZARD FACILITIES AND LASER RANGE, AEROMEDICAL LIBRARY, AEROSPACE MED EVALUATION AND CONSULTATIVE SERVICES, NUCLEAR MEDICINE ACQUISITION SYSTEM, OPTICAL RESEARCH, AUDIOLoGY, VESTIBULAR STUDIES, NEUROSCIENCES LAB, PSYCHOBIOLOGY, RADIOISOTOPE, AEROMED STANDARDS, MODELING, BIOMED RESEARCH, MEDICAL REPOSITORIES, RADIATION SCIENCES RESEARCH, BIODYNAMICS RESEARCH, DEVEL

INSTALLATION: WEAPONS LABORATORY

ALBUQUERQUE, NM

CDR. COL J M WALTON

CH SCI. DR A H GUNTHER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	255.852	252.949
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	17.988	28.847
TOTAL ANNUAL LAB	273.285	276.296
 TOTAL INHOUSE	107.806	111.879
TOTAL INHOUSE RDT&E	89.878	88.582
ANNUAL OPERATING COST	4.059	4.828

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NOM- PROF
MILITARY	607	22	860	247
CIVILIAN	522	55	262	260
TOTAL	1129	77	622	507

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
702	705.180	180.000	182.000	967.180	84.527	82.200

...MISSION

RESPONSIBLE FOR EXPLORATORY, ADVANCED, AND ENGINEERING DEVELOPMENT IN NUCLEAR WEAPONS EFFECTS, NUCLEAR WEAPONS SURVIVABILITY/VULNERABILITY, NUCLEAR WEAPONS SAFETY, AND DIRECTED ENERGY TECHNOLOGY.

...CURRENT IMPORTANT PROGRAMS

LASER WEAPON TECHNOLOGY

ADVANCED WEAPON TECHNOLOGY

NUCLEAR SURVIVABILITY/VULNERABILITY ANALYSIS AND TESTING

NUCLEAR SAFETY ANALYSIS AND DESIGN CRITERIA

STRATEGIC DEFENSE INITIATIVES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

NUCLEAR WEAPONS EFFECTS SIMULATION, SAFETY, COMPONENT ASSESSMENT AND ANALYSIS OF WEAPONS SYSTEMS NUCLEAR HARDNESS ARE CONDUCTED IN ENGINEERING TEST LABORATORIES AND PHYSICS LABORATORIES. SIMULATION/TESTS ON MISSILES, AIRCRAFT, AND COMPONENTS USE ELECTROMAGNETIC PULSE SIMULATORS, GAS GUNS, AND X-RAY DEVICES. CIVIL ENGINEERING PROGRAMS USE SHOCK TUBES AND HIGH EXPLOSIVES FOR SIMULATION OF NUCLEAR BLAST AND SHOCK. LASER SYSTEMS DEVELOPMENT USES LASER/OPTICS LABORATORIES AND TEST RANGES WITH LARGE, HIGH POWER DEVICES. A TECHNICAL LIBRARY, METALLURGY AND METEOROLOGY LABORATORIES, 1 CRAY, 2 CDC-780 AND 1 IBM-484 COMPUTERS WITH REMOTE ACCESS TERMINALS AND MULTI-CHANNEL SENSING/RECORING AND DATA REDUCTION SUPPORT ALL REQUIRING RDT&E PROGRAMS.

INSTALLATION: WESTERN SPACE AND MISSILE CENTER

VANDENBERG AFB, CA

CDR. COL LAWRENCE L. GOOCH

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	4.507	2.445
TOTAL PROCUREMENT	12.466	9.990
TOTAL O&M	187.476	116.891
TOTAL OTHER	11.823	12.145
TOTAL ANNUAL LAB	166.272	140.971
 TOTAL INHOUSE	 11.972	 12.290
TOTAL INHOUSE RDT&E	0.000	0.000
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	887	4	288	99
CIVILIAN	420	8	826	94
TOTAL	757	7	564	193

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
58600	914.972	568.183	607.327	2090.482	800.000	400.000

...MISSION

OPERATE THE WESTERN TEST RANGE TO SUPPORT FIELD TEST AND LAUNCH OPERATIONS FOR A VARIETY OF GOVERNMENT AND INDUSTRY USERS.

...CURRENT IMPORTANT PROGRAMS

SPACE TRANSPORTATION SYSTEM

MINUTEMAN III OPERATION TESTING PROGRAM

PEACEKEEPER MISSILE SYSTEM

SPACE LAUNCH PROGRAMS USING TITAN, ATLAS AND SCOUT BOOSTERS

RANGE SUPPORT TO BALLISTIC AND GUIDED MISSILES AND AERONAUTICAL PROGRAMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

WSMC CAPABILITIES INCLUDE TEST LAUNCH AND RANGE SUPPORT. TEST LAUNCH INCLUDES: ASSEMBLY AND PRELAUNCH TESTING OF LAUNCH VEHICLE SYSTEMS USING ATLAS, TITAN, AND IM BOOSTERS; PAYLOAD AND VEHICLE INTERGRATION/CHECKOUT AND LAUNCH CONTROL/SAFETY. WESTERN TEST RANGE SUPPORT INCLUDES NEAR AND FAR TERM RANGE INSTRUMENTATION PLANNING AND DATA GATHERING ON BALLISTIC/SPACE/GUIDED MISSILE/AIRCRAFT AND OTHER TESTS AT UPRANGE AND DOWNRANGE LOCATIONS. LAUNCH AZIMUTHS VARY FROM 140 TO 313 DEG. AERO TESTS ARE CONDUCTED IN AN INSTRUMENTED OFFSHORE OPERATING AREA. LAUNCH FACILITIES AND RANGE INSTRUMENTATION CAN BE RECONFIGURED TO MEET PROGRAM REQUIREMENTS.

INSTALLATION: 4950TH TEST WING

WPAFB, OHIO

CDR. COL.G.A.BLAKE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	83.991	90.450
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.803	0.000
TOTAL OTHER	28.817	27.514
TOTAL ANNUAL LAB	118.611	117.964
 TOTAL INHOUSE	97.745	105.458
TOTAL INHOUSE RDT&E	71.425	78.889
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL	PERSONNEL DATA (END OF FY 1985)		NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	
MILITARY	888	4	147
CIVILIAN	977	0	185
TOTAL	1865	4	282
			1588

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP	
	LAB	ADMIN	OTHER	TOTAL			
400	110.465	66.229	1026.538	1208.227	21.900	320.000	

...MISSION

DOD MAJ TEST FAC. PERFORMS T&E ON MIL SYS, SUBSYS, AND COMP. OPER & MAIN ASGN TEST SUP ACFT AND ANCIL EQUIP. MANAGES A CENTRAL FAC FOR MAJ MOD OF AFSC ACFT. OPER SHOP FAC IN SUP OF CMD ACFT CLASS II MODS AND AFWAL R&D PROGMS. PROVIDES FLT TST ENGRG. TECH DATA ACQ. AND TECH PHOTO SVCS.

...CURRENT IMPORTANT PROGRAMS

JOINT SURVEILLANCE AND TARGET ATTACK RADAR SYSTEM (J-STARS)
 CRUISE MISSILE MISSION CONTROL AIRCRAFT (CMMCA)
 AIRBORNE SEEKER EVALUATION TEST SYSTEM (ASSETS)
 SONOBUOY MISSILE IMPACT LOCATION SYSTEM (SMILS)
 MARK XV IFF

...FUNCTIONS/EQUIPMENT/CAPABILITIES

TEST SUPPORT AIRCRAFT (ARIA EC-135) PROVIDE GLOBAL SUPPORT
 ALL AFSC MAJOR CLASS II AIRCRAFT MODIFICATION
 MISSILE LAUNCH/REENTRYTRACKING AND DATA RELAY
 1400 SQUARE MILE RESTRICTED TEST AREA IN OHIO
 FLIGHT TEST ENGINEERING (AERO-MECH, AVIONICS, ANALYSIS, INSTRUMENTATION)
 TEST DATA ACQUISITION/PROCESSING/ANALYSIS
 2 OPERATIONAL SQS (FLIGHT CREWS) 8 MAINTENANCE SQS, AND 2 DETACHMENTS
 SPECIALIZED FABRICATION AND MODELING EQUIPMENT
 COMPUTER AIDED DESIGN/MANUFACTURING (CAD/CAM) CAPABILITY
 TECHNICAL PHOTOGRAPHIC INSTRUMENTATION & PROCESSING
 LARGEST PMEL IN AF
 ASD LABORATORY MATERIAL CONTROL ACTIVITY

INSTALLATION: 6585TH TEST GROUP

HOLLOMAN AFB, NM

CDR. COL MICHAEL E. SEXTON

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	31.866	88.078
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	8.592	9.000
TOTAL OTHER	6.540	20.286
TOTAL ANNUAL LAB	46.998	67.809
 TOTAL INHOUSE	26.864	28.526
TOTAL INHOUSE RDT&E	19.824	21.790
ANNUAL OPERATING COST	0.411	0.759

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	826	0	98	228
CIVILIAN	276	2	100	176
TOTAL	602	2	198	404

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
7052	407.068	39.081	98.979	540.128	228.852	104.652	

...MISSION

DOD FOCALPOINT FOR FLIGHT, LAB & SLED T&E OF INERTIAL GUIDANCE SYSTEMS. HIGH SPEED TESTING FOR SEAT EJECTION, IMPACT, CORROSION AND GUIDANCE SYSTEMS. RADAR CROSS SECTION AND ANTENNA MEASUREMENT OF SPACE VEHICLES, RVS, A/C. A/C SUPPORT OF IN-HOUSE & TRANSIENT REQMTS.

...CURRENT IMPORTANT PROGRAMS

PEACEKEEPER GUIDANCE SYSTEM AND COMPONENTS TESTING

AMRAAM RADAR FSD FLIGHT TESTS

A/C NAVIGATION SYSTEM VERIFICATION TESTING PROJECT 688G

SMALL MISSILE GUIDANCE TESTING

B1-B AVIONICS TESTING

...FUNCTIONS/EQUIPMENT/CAPABILITIES

ONE 260-INCH/2-100 INCH PRECISION CENTRIFUGE.

PRECISION GROUND/AIRBORNE TEST FACILITY.

PRECISION REFERENCE/DATA COLLECTION

ENVIRONMENTAL CHAMBERS.

INERTIAL NAV VANS.

50799 FT TEST TRACK.

35588 FT 2 RAIL / 15200 FT 8 RAIL.

6 BLOCK HOUSES.

9000 FT RAINFIELD, 2000 FT BALLISTIC RAINFIELD.

80 MHZ TO 95 GHZ RADAR MEASUREMENT OF AMP, PHASE, DOPPLER, CLINT.

JET ENGINE MODULATION

MODEL MAKING

INSTALLATION: ARMED FORCES RADIobiology RSCH INSTITUTE

BETHESDA, MD

CDR. COL JAMES J. CONKLIN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1985 (ACTUAL)	1986 (ACT + EST)
TOTAL RDT&E	18.640	15.017
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	8.880	8.585
TOTAL ANNUAL LAB	17.020	18.602
 TOTAL INHOUSE	 17.020	 18.602
TOTAL INHOUSE RDT&E	18.640	15.017
ANNUAL OPERATING COST	8.054	8.288

PERSONNEL DATA (END OF FY 1985)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	92	19	49	43
CIVILIAN	155	22	61	94
TOTAL	247	41	110	137

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
10	26.528	16.047	56.540	99.110	18.415	18.220	

...MISSION

THE MISSION OF AFRRI SHALL BE TO CONDUCT RESEARCH IN THE FIELD OF RADIobiology AND RELATED MATTERS ESSENTIAL TO THE OPERATIONAL AND MEDICAL SUPPORT OF THE DEPARTMENT OF DEFENSE AND THE MILITARY SERVICES

...CURRENT IMPORTANT PROGRAMS

DEFINE PHYSIOLOGICAL/PATHOLOGICAL RESPONSE IN HUMANS TO RADIATION.
ASSESS EFFECTS OF COMBINED INJURIES, MILITARY FORCES/NONCOMBATANTS.
DATA FOR PREDICTION OF COMBAT INEFFECTIVENESS AND CASUALTY PRODUCTION.
TREATMENT METHODS FOR CASUALTIES FROM RADIATION/COMBINED INJURY.
INSTRUCTION TO ARMED SERVICES ON TREATMENT OF NUCLEAR CASUALTIES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FUNCTIONS: OPERATE FACILITIES FOR CONDUCTING RADIobiology RESEARCH AND DISSEMINATING RESULTS: CONDUCT ADVANCED TRAINING: PROVIDE ANALYSIS CONSULTATION ON BIOEFFECTS OF RADIATION AND PERFORM OTHER SUCH RESEARCH FUNCTIONS AS REQUIRED. MAJOR EQUIPMENT INCLUDES: PULSE AND STEADY STATE NUCLEAR REACTOR, 200,000-CURIE COBALT-60 IRRADIATOR, ELECTRON LINEAR ACCELERATOR, X-RAY AND THERATRON EXPOSURE CAPABILITY

SUPPORT SERVICES INCLUDE: MEASUREMENT OF RADIATION FIELDS, PROVISION AND CARE OF LABORATORY ANIMALS, EQUIPMENT DESIGN AND FABRICATION ASSISTANCE, REAL-TIME DATA ACQUISITION SYSTEM, TELEVISION AND FILM DOCUMENTATION OF EXPERIMENTS, PERSONNEL AND ENVIRONMENTAL MONITORING, EDITORIAL ASSISTANCE IN REPORT PREPARATION, AND A LARGE TECHNICAL LIBRARY.

APPENDIX I

DISESTABLISHMENT, ESTABLISHMENT OR CHANGES IN ORGANIZATION OR NAME*

DEPARTMENT OF THE ARMY

Aviation Research and Technology Activity Moffett Field, CA	Established
Aviation Research and Technology Laboratories Moffett Field, CA	Disestablished (Name Change)
Combat Surveillance and Target Acquisition Laboratory	Disestablished
Materials and Mechanics Research Center Watertown, MA	Disestablished (Name Change)
Materials Technology Laboratory Watertown, MA	Established
Natick R&D Center Natick, MA	Disestablished (Name Change)
Natick RD&E Center Natick, MA	Established
Tank-Automotive Command R&D Center Warren, MI	Disestablished (Name Change)
Tank-Automotive Command RD&E Center Warren, MI	Established

DEPARTMENT OF THE NAVY

NONE

DEPARTMENT OF THE AIR FORCE

NONE

* Changes since publication of Department of Defense In-house RDTE Activities,
30 October 1984.

APPENDIX II

DEFINITIONS

1. IN-HOUSE RDTE ACTIVITIES--Those organizational entities engaged in performing work in any or all of the categories of research, development, test, and evaluation. The RDTE effort, however, should represent a minimum of 25 percent of the total effort of each entity reporting in order to be considered as an RDTE activity.

2. PROFESSIONALS--Full-time government scientific and engineering personnel actively engaged in RDTE activities. In the case of civilians this will include all those holding positions that fall into the following categories under the Civil Service Occupational Groups and Series of Classes, General Schedule:

101	Social Science	660	Pharmacist
150	Geography	662	Optometrist
180	Psychology	665	Speech Pathology and Audiology
184	Sociology	668	Podiatrist
190	General Anthropology	680	Dental Officer
193	Archeology	690	Industrial Hygiene
401	Biology	695	Food and Drug Officer
403	Microbiology	696	Consumer Safety
405	Pharmacology	701	Veterinary Medical Science
408	Ecology	801	General Engineering
410	Zoology	803	Safety Engineering
413	Physiology	804	Fire Prevention Engineering
414	Entomology	806	Materials Engineering
430	Botany	807	Landscape Architecture
434	Plant Pathology	808	Architecture
435	Plant Physiology	810	Civil Engineering
436	Plant Protection and Quarantine	819	Sanitary Engineering
437	Horticulture	830	Mechanical Engineering
440	Genetics	840	Nuclear Engineering
454	Range Conservation	850	Electrical Engineering
457	Soil Conservation	855	Electronic Engineering
460	Forestry	858	Biomedical Engineering
470	Soil Science	861	Aeronautics Engineering
471	Agronomy	871	Naval Architecture
480	General Fish & Wildlife	880	Mining Engineering
482	Fishery Biology	881	Petroleum Engineer
486	Wildlife Biology	890	Agriculture Engineering
487	Animal Science	892	Ceramic Engineering
493	Home Economics	893	Chemical Engineering
601	General Health	894	Welding Engineering
602	Medical Officer	896	Industrial Engineering
		1221	Patent Adviser
		1222	Patent Attorney
		1223	Patent Classifying
		1224	Patent Examining
		1225	Patent Interference Examining

1226	Design Patent Examining	1370	Cartography
1301	General Physical Science	1372	Geodesy
1306	Health Physics	1380	Forest Products Technology
1310	Physics	1382	Food Technology
1313	Geophysics	1384	Textile Technology
1315	Hydrology	1386	Photographic Technology
1320	Chemistry	1510	Actuary
1321	Metallurgy	1515	Operations Research
1330	Astronomy and Space Science	1520	Mathematics
1340	Meteorology	1529	Mathematical Statistician
1350	Geology	1530	Statistician
1360	Oceanography	1540	Cryptography
		1550	Computer Sciences

Military professionals, both officer and enlisted, actively engaged in RDTE activities could be identified with the functions described in the above referenced civilian job series. Lawyers, accountants, chaplains, social workers, and educators should be excluded.

3. TECHNICIANS--Generally nonprofessionals working on an RDTE project or program in support of a professional. In the case of civilians, it will include, but will not necessarily be limited to, those holding positions that fall into the following categories of the Civil Service Occupational Groups and Series of Classes, General Schedule:

102	Social Science Technician	681	Dental Assistant
181	Psychological Technician	682	Dental Hygierist
404	Biological Technician	683	Dental Laboratory Technician
421	Plant Protection Technician	684	Public Health Dental Hygienist
455	Range Technician	685	Public Health Program Specialist
458	Soil Conservation Technician	688	Sanitarian
462	Forestry Technician	698	Environmental Health Technician
603	Physician Assistant	699	Health Technician
621	Nurse Assistant	704	Animal Health Technician
622	Medical Supply Aid	802	Engineering Technician
625	Autopsy Attendant	817	Surveying Technician
636	Rehabilitation Therapy Asst	818	Engineering Drafting
642	Nuclear Medicine Technician	856	Electronics Technician
644	Medical Technologist	895	Industrial Engineering Technician
645	Medical Technician	1202	Patent Technician
646	Pathology Technician	1311	Physical Science Technician
647	Medical Radiology Technician	1316	Hydrologic Technician
648	Therapeutic Radiological Technologist	1341	Meteorological Technician
649	Medical Machine Technician	1371	Cartographic Aid
650	Medical Technical Assistant	1374	Geodetic Technician
661	Pharmacy Technician	1521	Mathematics Technician
664	Restoration Technician	1531	Statistical Clerical & Administrative
667	Orthotist and Prosthetist	1541	Cryptanalysis
669	Medical Record Librarian		

Discretion will have to be exercised by each RDTE activity in determining the number of military technicians. Generally, they should follow the guidelines established in defining civilian technicians and can be identified in DOD 1312.1-E.

4. REAL PROPERTY COST--Each reporting activity will be responsible for determining and reporting the cost of real property. This cost should be established in accordance with the guidelines and definitions in DOD Instruction 4165.14. This should also include the cost of installed equipment.

5. EQUIPMENT COST--Each reporting activity will be responsible for determining and reporting the cost of personal property. This cost should be established in accordance with the guidelines and definitions in DOD Instruction 4165.14. This should also include the cost of installed equipment.

6. SPACE--The data to be furnished should include only walled and roofed building space. It should not include such things as parking lots, open storage areas, lean-tos, etc. The source of data may be the annual report submitted in compliance with the requirements of DOD Instruction 4165.14.

7. IN-HOUSE OBLIGATIONS--Obligations reported under this category are for activities performed, or to be performed, by the organizational entity. Their work is carried on directly by their own personnel. Particular care should be taken to include under in-house performance the cost of supplies and equipment essentially of an off-the-shelf nature that are procured for use in in-house research and development, plus such things as travel, publications, and other types of services in support of in-house functions and M.P.A. Excluded from the in-house total are expenses for planning and administering programs by DOD personnel of contracts and grants for out-of-house work and M.C.A.

8. OUT-OF-HOUSE OBLIGATIONS--Obligations reported under this category are for activities performed, or to be performed, by other than the organizational entity. Out-of-house performers may include other departmental or DOD organizational entities, industrial firms, educational institutions, not-for-profit institutions, and private individuals. Included as out-of-house work are all expenses paid the out-of-house performers, as well as the expenses incurred in planning and administering these programs by personnel of the organizational entity. This would also include travel and other supporting services.

9. ANNUAL OPERATING COST--This should generally reflect the overhead cost of operating the laboratory or facility. It should include such things as costs of utilities, rents, janitorial services, guard and fire protection, support services such as supply personnel, printing, maintenance of buildings and grounds, etc. It should not include the salaries of direct labor personnel such as scientists, engineers, technicians, draftsmen, machinists, etc.

APPENDIX III

Selected Standard Abbreviations and Acronyms

AAM -- air-to-air missile	GCA -- ground-controlled approach
AAW -- antiair warfare	HF -- high-frequency
ADPE -- automatic data-processing equipment	IFF -- identification, friend or foe
AEDC -- Arnold Engineering Development Center	IR -- infrared
AFSC -- Air Force Systems Command	MPT -- military potential test
AFWET -- Air Force weapons effectiveness testing	NAF -- Naval Air Facility
AMC -- US Army Materiel Cmd	NASA -- National Aeronautics and Space Administration
APG -- Aberdeen Proving Ground	NASC -- Naval Air Systems Command
ARPA -- Advanced Research Projects Agency	NAVAIR -- Naval Air Systems Command
ASW -- antisubmarine warfare	NAVSEA -- Naval Sea Systems Command
AUS -- Army United States	NEMP -- nuclear electromagnetic propagation
BIS -- Board of Inspection and Survey	PI -- product improvement
BW -- biological warfare	POL -- petroleum oil, lubricants
CBR -- chemical, biological	QA -- quality assurance
CE -- Chief of Engineers, Army	QMDO -- qualitative materiel development objective
CG -- commanding general	RDTE -- Research, development, test and evaluation
CNO -- Chief of Naval Operations	RF -- radio frequency
COMMEL -- communications electronics	RV -- reentry vehicle
DA -- Department of the Army	SATS -- short airfield tactical support
DOD -- Department of Defense	SDR -- small development requirement
DZ -- drop zone	SI -- ship installation
ECM -- electronic countermeasures	SP -- self-propelled
ED -- engineering development	ST -- service test
EDT -- engineering development & test	T&E -- test and evaluation
EEG -- electroencephalogram	UDT -- underwater demolition team
EKG -- electrocardiogram	ULMS -- Undersea Long-Range Missile System
ELINT -- electronic intelligence	USATECOM -- US Army Test and Evaluation Command
EMP -- electromagnetic propagation	UTTAS -- utility tactical transport aircraft system
EW -- electromagnetic warfare	USW -- undersea warfare
EODC -- Explosive Ordnance Disposal Center	UV -- ultraviolet
ET -- engineering artillery	V/STOL -- vertical/short takeoff and landing
FA -- field artillery	
FBM -- fleet ballistic missile	

APPENDIX IV

KEY WORD OR ACTIVITY

	<u>PAGE</u>
AIR MOBILITY:	
AVIATION R&T ACTIVITY	10
AIR TO AIR MISSILES:	
ORDNANCE MISSILE TEST FACILITY (NAVY)	77
PACIFIC MISSILE TEST CENTER	78
WEAPONS CENTER	85
AIRCRAFT:	
AIR DEVELOPMENT CENTER	57
AVIATION BOARD	7
AVIATION ENGINEERING FLIGHT ACTIVITY	9
AVIATION R&T ACTIVITY	10
AVIONICS R&D ACTIVITY	11
FLIGHT DYNAMICS LABORATORY	94
FLIGHT TEST CENTER	95
AIRCRAFT ENGINES:	
AERO PROPULSION LABORATORY	87
AIR PROPULSION CENTER	58
ARNOLD ENGINEERING DEVELOPMENT CENTER	91
AMMUNITION:	
ARMAMENT DIVISION	89
ARMOR AND ENGINEER BOARD	4
BALLISTIC RESEARCH LABORATORY	12
COMBAT SYSTEMS TEST ACTIVITY	17
EXPLOSIVE ORDNANCE DISPOSAL FACILITY	70
FIRE CONTROL & SMALL CALIBER WEAPON SYSTEMS LABORATORY	28
LARGE CALIBER WEAPONS SYSTEMS LABORATORY	36

APPENDIX IV

KEY WORD OR ACTIVITY

	<u>PAGE</u>
<u>AMPHIBIOUS OPERATIONS:</u>	
COASTAL SYSTEMS CENTER	65
DAVID W. TAYLOR SHIP R&D CENTER	66
<u>ANTIAIRCRAFT DEFENSE SYSTEMS:</u>	
AIR DEFENSE ARTILLERY BOARD.....	2
ORDNANCE MISSILE TEST FACILITY	77
SURFACE WEAPONS CENTER	82
<u>ANTIMISSILE DEFENSE SYSTEMS:</u>	
EASTERN SPACE AND MISSILE CENTER	92
KWAJALEIN MISSILE RANGE	36
WESTERN SPACE AND MISSILE CENTER	106
<u>ANTISUBMARINE WARFARE:</u>	
AIR DEVELOPMENT CENTER (NAVY)	57
OCEAN SYSTEMS CENTER	75
RESEARCH LABORATORY (NAVY)	80
UNDERSEA RANGES DEPARTMENT	82
UNDERWATER SYSTEMS CENTER	84
<u>ARCHITECTURAL:</u>	
CONSTRUCTION ENGINEERING RESEARCH LABORATORY	20
<u>ARCTIC ENVIRONMENTAL TESTING:</u>	
COLD REGIONS R&E LABORATORY	15
COLD REGIONS TEST CENTER	16

APPENDIX IV

KEY WORD OR ACTIVITY

	<u>PAGE</u>
<u>ARTILLERY AND GUNS:</u>	
COLD REGIONS TEST CENTER	16
COMBAT SYSTEMS TEST ACTIVITY	17
FIELD ARTILLERY BOARD	27
FIRE CONTROL & SMALL CALIBER WEAPONS SYSTEMS LABORATORY	28
LARGE CALIBER WEAPONS SYSTEMS LABORATORY	37
<u>ATOMIC PROPERTIES:</u>	
ARMOR AND ENGINEER BOARD	4
BALLISTIC RESEARCH LABORATORY	12
INSTITUTE OF DENTAL RESEARCH	32
WEAPONS EVALUATION FACILITY	86
<u>AUTOMOTIVE VEHICLES:</u>	
COMBAT SYSTEMS TEST ACTIVITY	17
TANK-AUTOMOTIVE COMMAND RD&E CENTER	51
YUMA PROVING GROUND	55
<u>AVIONICS:</u>	
AVIONICS LABORATORY (AIR FORCE)	91
AVIONICS R&D ACTIVITY (ARMY)	11
BALLISTIC RESEARCH LABORATORY	12
<u>BASIC RESEARCH</u>	
ARMY RESEARCH OFFICE	5
OFFICE OF NAVAL RESEARCH	76
OFFICE OF SCIENTIFIC RESEARCH	101
<u>BIOLOGICAL WARFARE:</u>	
CHEMICAL R&D CENTER	14
DUGWAY PROVING GROUND	21
SCHOOL OF AEROSPACE MEDICINE	103

APPENDIX IV

KEY WORD OR ACTIVITY

	<u>PAGE</u>
<u>BLOOD:</u>	
WALTER REED ARMY INSTITUTE OF RESEARCH	57
<u>BURN: (INJURIES)</u>	
INSTITUTE OF SURGICAL RESEARCH	33
<u>CAMOUFLAGE:</u>	
BELVOIR R&D CENTER	13
<u>CHEMICAL WARFARE:</u>	
CHEMICAL R&D CENTER	14
DUGWAY PROVING GROUND	21
<u>CLOTHING:</u>	
AIR DEVELOPMENT CENTER	57
CLOTHING AND TEXTILE RESEARCH FACILITY	64
NATICK RD&E CENTER	46
<u>COASTAL REGIONS:</u>	
COASTAL SYSTEMS CENTER	65
<u>COLD REGIONS:</u>	
COLD REGIONS R&E LABORATORY	15
COLD REGIONS TEST CENTER	16
<u>COMBAT SURVEILLANCE:</u>	
ELECTRONIC WARFARE LABORATORY	23

APPENDIX IV

KEY WORD OR ACTIVITY

	<u>PAGE</u>
<u>COMMUNICATIONS AND RADIO SYSTEMS:</u>	
AVIONICS R&D ACTIVITY (ARMY)	11
COMMUNICATIONS-ELECTRONICS R&D CENTER	19
COMMUNICATIONS-ELECTRONICS BOARD	18
RESEARCH LABORATORY (NAVY)	80
<u>CONSTRUCTION AND STRUCTURAL ENGINEERING:</u>	
CIVIL ENGINEERING LABORATORY	63
CONSTRUCTION ENGINEERING RESEARCH LABORATORY	20
ENGINEERING WATERWAYS EXPERIMENT STATION	26
<u>COST ANALYSIS:</u>	
MATERIEL SYSTEMS ANALYSIS ACTIVITY	40
<u>CRYOGENICS:</u>	
LARGE CALIBER WEAPONS SYSTEMS	36
<u>DATA PROCESSING:</u>	
ATMOSPHERIC SCIENCES LABORATORY	6
COMMUNICATIONS-ELECTRONICS R&D CENTER	19
CONSTRUCTION ENGINEERING RESEARCH LABORATORY	20
<u>DENTISTRY:</u>	
DENTAL RESEARCH INSTITUTE NTC	67
INSTITUTE OF DENTAL RESEARCH	33
MEDICAL RESEARCH INSTITUTE	71
<u>EARTH SCIENCES:</u>	
ENGINEERING WATERWAYS EXPERIMENT STATION	26

APPENDIX IV

KEY WORD OR ACTIVITY

PAGE

ELECTRONIC WARFARE:

ARNOLD ENGINEERING DEVELOPMENT CENTER	91
ELECTRONIC PROVING GROUND	22
ELECTRONIC WARFARE LABORATORY	23
ELECTRONICS DEVICES AND TECHNOLOGY LABORATORY	24
FRANK J. SEILER RESEARCH LABORATORY	98
ROME AIR DEVELOPMENT CENTER	103

ENVIRONMENT:

COLD REGIONS R&E LABORATORY	15
COLD REGIONS TEST CENTER	16
CONSTRUCTION ENGINEERING RESEARCH LABORATORY	20
DUGWAY PROVING GROUND	21
COMBAT SYSTEMS TEST ACTIVITY	17
MEDICAL BIOENGINEERING RESEARCH & DEVELOPMENT LABORATORY	41
RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE	49
TROPIC TEST CENTER	52

EQUIPMENT: GENERAL

BELVOIR R&D CENTER	13
--------------------------	----

ESCAPE SYSTEMS:

FLIGHT TEST CENTER	96
--------------------------	----

FIRE CONTROL SYSTEMS:

ARMAMENT DIVISION	90
FIRE CONTROL & SMALL CALIBER WEAPONS SYSTEMS LABORATORY	28
WEAPONS CENTER	85

FOOD PRESERVATION:

NATICK RD&E CENTER	46
--------------------------	----

APPENDIX IVKEY WORD OR ACTIVITY

	<u>PAGE</u>
FUELS AND LUBRICANTS:	
AERO PROPULSION LABORATORY	87
AIR DEVELOPMENT CENTER	57
BELVOIR R&D CENTER	13
HARRY DIAMOND LABORATORIES	29
FUZES:	
HARRY DIAMOND LABORATORIES	29
LARGE CALIBER WEAPONS SYSTEMS LABORATORY	36
GUIDED MISSILES:	
ARMAMENT DIVISION	90
BALLISTIC RESEARCH LABORATORY	12
EASTERN SPACE AND MISSILE TEST CENTER	94
FIELD ARTILLERY BOARD	27
INFANTRY BOARD	31
KWAJALEIN MISSILE RANGE	35
MISSILE LABORATORY	45
ORDNANCE MISSILE TEST FACILITY	77
WESTERN SPACE AND MISSILE TEST CENTER	106
WHITE SANDS MISSILE RANGE	54
HUMAN FACTORS ENGINEERING:	
AEROMEDICAL RESEARCH LABORATORY	1
AEROSPACE MEDICAL RESEARCH LABORATORY (NAVY)	56
HUMAN ENGINEERING LABORATORY	30
HUMAN RESOURCES LABORATORY	99
SCHOOL OF AEROSPACE MEDICINE	104
HYDROFOIL:	
DAVID W. TAYLOR SHIP R&D CENTER	66
ENGINEER WAYS EXPERIMENT STATION	26

APPENDIX IV

KEY WORD OR ACTIVITY

	<u>PAGE</u>
<u>INFECTIOUS DISEASES:</u>	
MEDICAL RESEARCH UNIT NO. 2 (PHILIPPINES)	72
MEDICAL RESEARCH UNIT NO. 3 (EGYPT)	73
WALTER REED ARMY INSTITUTE OF RESEARCH	53
<u>INSECTS:</u>	
BIOSCIENCES LABORATORY	62
LETTERMAN ARMY INSTITUTE OF RESEARCH	37
MEDICAL BIOENGINEERING R&D LABORATORY	40
<u>JET ENGINES:</u>	
AERO PROPULSION LABORATORY	87
AIR PROPULSION CENTER	58
ARNOLD ENGINEERING DEVELOPMENT CENTER	91
<u>LANDING AIDS:</u>	
AVIONICS R&D ACTIVITY (ARMY)	11
AVIONICS LABORATORY (AIR FORCE)	92
FLIGHT TEST CENTER	96
<u>LASERS:</u>	
AERO PROPULSION LABORATORY	87
AVIONICS LABORATORY (AIR FORCE)	92
AVIONICS R&D ACTIVITY (ARMY)	11
INSTITUTE OF DENTAL RESEARCH	32
LETTERMAN ARMY INSTITUTE OF RESEARCH	37
MISSILE LABORATORY	45
RESEARCH LABORATORY (NAVY)	80
SURFACE WEAPONS CENTER	82
<u>MAPPING:</u>	
ENGINEER TOPOGRAPHIC LABORATORIES	25

APPENDIX IV

KEY WORD OR ACTIVITY

	<u>PAGE</u>
MATERIALS:	
BALLISTIC RESEARCH LABORATORY	12
MATERIALS LABORATORY	10
MATERIALS TECHNOLOGY LABORATORY	38
MEDICAL RESEARCH:	
AEROMEDICAL RESEARCH LABORATORY	1
ARMED FORCES RADIobiology RESEARCH INSTITUTE	109
BIOSCIENCES LABORATORY	62
INSTITUTE OF DENTAL RESEARCH	32
INSTITUTE OF SURGICAL RESEARCH	33
LETTERMAN ARMY INSTITUTE OF RESEARCH	37
MEDICAL BIOENGINEERING R&D LABORATORY	40
MEDICAL RESEARCH INSTITUTE (NAVY)	71
MEDICAL RESEARCH INSTITUTE OF CHEMICAL DEFENSE	43
MEDICAL RESEARCH UNIT, NO. 2 (PHILIPPINES)	72
MEDICAL RESEARCH UNIT, NO. 3 (EGYPT)	73
RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE	49
SCHOOL OF AEROSPACE MEDICINE	104
SUBMARINE MEDICAL RESEARCH LABORATORY	81
WALTER REED ARMY INSTITUTE OF RESEARCH	53
METEOROLOGY:	
ATMOSPHERIC SCIENCES LABORATORY	6
COLD REGIONS TEST CENTER	16
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	68
FIELD ARTILLERY BOARD	27
MINES:	
COASTAL SYSTEMS CENTER	65
NAVAL ARCHITECTURE:	
DAVID W. TAYLOR SHIP R&D CENTER	66
NIGHT VISION:	
NIGHT VISION AND ELECTRO-OPTICS LABORATORY	47

APPENDIX IV

KEY WORD OR ACTIVITY

PAGE

NUTRITION:

LETTERMAN ARMY INSTITUTE OF RESEARCH	37
NATICK RD&E CENTER	46

OCEANOGRAPHY:

CIVIL ENGINEERING LABORATORY	63
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	68
OCEAN RESEARCH & DEVELOPMENT ACTIVITY	74

OPTICS:

ENGINEER TOPOGRAPHIC LABORATORIES	25
NIGHT VISION & ELECTRO-OPTICS LABORATORY	47

PHYSICAL PROPERTIES:

FRANK J. SEILER RESEARCH LABORATORY	97
MATERIALS TECHNOLOGY LABORATORY	38

PHYSICAL SCIENCES:

BALLISTIC RESEARCH LABORATORY	12
FRANK J. SEILER RESEARCH LABORATORY	97
GEOPHYSICS LABORATORY	98

PSYCHOLOGY:

HEALTH RESEARCH CENTER	70
LETTERMAN ARMY INSTITUTE OF RESEARCH	37
PERSONNEL RESEARCH & DEVELOPMENT CENTER	79
RESEARCH INSTITUTE FOR BEHAVIORAL & SOCIAL SCIENCES	48
WALTER REED ARMY INSTITUTE OF RESEARCH	53

APPENDIX IV

KEY WORD OR ACTIVITY

	<u>PAGE</u>
<u>RADAR</u>	
AVIONICS LABORATORY (AIR FORCE)	92
AVIONICS R&D ACTIVITY (ARMY)	11
HARRY DIAMOND LABORATORIES	29
RESEARCH LABORATORY (NAVY)	80
ROME AIR DEVELOPMENT CENTER	103
<u>RADIOBIOLOGY:</u>	
ARMED FORCES RADIOBIOLOGY RESEARCH INSTITUTE	109
<u>ROCKET PROPULSION:</u>	
ROCKET PROPULSION LABORATORY	102
<u>SATELLITES:</u>	
FLIGHT DYNAMICS LABORATORY	95
ORDNANCE MISSILE TEST FACILITY (NAVY)	77
RESEARCH LABORATORY (NAVY)	80
<u>SOCIAL SCIENCES:</u>	
PERSONNEL RESEARCH AND DEVELOPMENT CENTER	79
RESEARCH INSTITUTE FOR BEHAVIORAL AND SOCIAL SCIENCES	48
<u>SYSTEM ANALYSIS:</u>	
MATERIEL SYSTEMS ANALYSIS ACTIVITY	39
<u>TARGET ACQUISITION:</u>	
AEROSPACE MEDICAL RESEARCH LABORATORY	88
ELECTRONIC WARFARE LABORATORY	23
HARRY DIAMOND LABORATORIES	29

APPENDIX IV

KEY WORD OR ACTIVITY

	<u>PAGE</u>
<u>TOPOGRAPHY:</u>	
ENGINEER TOPOGRAPHIC LABORATORIES	25
<u>TORPEDOES:</u>	
SURFACE WEAPONS CENTER	82
UNDERSEA RANGES DEPARTMENT	83
<u>TROPICAL REGIONS:</u>	
TROPICAL TEST CENTER	52
<u>WARHEADS:</u>	
ARMAMENT DIVISION	90
BALLISTIC RESEARCH LABORATORY	12
FIELD ARTILLERY BOARD	27
WEAPONS CENTER	85
<u>WEAPONS SYSTEMS:</u>	
AIR DEFENSE BOARD	2
AIR DEVELOPMENT CENTER	57
INFANTRY BOARD	31
COMBAT SYSTEMS TEST ACTIVITY	17
UNDERWATER SYSTEMS CENTER	84
WEAPONS LABORATORY	105